














# Index of

## /documents/Historic\_Bridge\_Inventory/dist8

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
<hr/>			
 <a href="#">Parent Directory</a>		-	
 <a href="#">christian.pdf</a>	15-Oct-2010 18:32	1.0M	
 <a href="#">dallas.pdf</a>	15-Oct-2010 18:32	294K	
 <a href="#">douglas.pdf</a>	15-Oct-2010 18:32	872K	
 <a href="#">greene.pdf</a>	15-Oct-2010 18:32	2.1M	
 <a href="#">hickory.pdf</a>	15-Oct-2010 18:32	347K	
 <a href="#">laclede.pdf</a>	15-Oct-2010 18:32	756K	
 <a href="#">ozark.pdf</a>	15-Oct-2010 18:32	410K	
 <a href="#">polk.pdf</a>	15-Oct-2010 18:32	1.5M	
 <a href="#">stone.pdf</a>	15-Oct-2010 18:32	506K	
 <a href="#">taney.pdf</a>	15-Oct-2010 18:32	1.0M	
 <a href="#">webster.pdf</a>	15-Oct-2010 18:32	60K	
 <a href="#">wright.pdf</a>	15-Oct-2010 18:32	87K	

*Apache/2.2.3 (Red Hat) Server at epq.modot.mo.gov Port 80*

# CHRISTIAN COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*CHRI01	126000.0	Frazier Ford Bridge	(replaced)
*CHRI02	143001.0	Blue Springs Bridge	(replaced)
*CHRI03	187000.4	Riverdale Bridge	2- 87' <b>pinned Pratt through truss</b> 1906 Canton Bridge Company
*CHRI04	209001.5	Riverside Bridge	2-100' <b>pinned Pratt through truss</b> 1909 Canton Bridge Company
*CHRI05	249000.3	Green Bridge	1-120' <b>pinned Pratt through truss</b> 1912 Canton Bridge Company
*CHRI06	262002.8	Reed Ford Bridge	1-140' <b>pinned Pratt through truss</b> c1920 Pioneer Construction Company
*CHRI07	292002.2	Jenkins Ford Bridge	1-100' <b>pinned Pratt through truss</b> 1914 Canton Bridge Company
CHRI08	306000.8	Roberts Ford Bridge	2- 80' <b>pinned Pratt pony truss</b> 1919 Pioneer Construction Company
*CHRI09	328500.1	McCracken Street Bridge	2-100' <b>riveted Baltimore through truss</b> 1922 Pioneer Construction Company
*CHRI10	382000.4	Hawkins Ford Bridge	2- 80' <b>pinned Pratt pony truss</b> 1915 Canton Bridge Company
*CHRI11	433000.4	Red Bridge	3- 86' <b>pinned Pratt pony truss</b> 1915 Canton Bridge Company

## EXCLUDED:

Steel stringer / girder

089001.0 277002.0 463000.9 471003.9 480000.1

Concrete girder

T 510 229000.1 248000.5 248000.8

Concrete slab

Y 753 058002.0 058002.1 062002.2 194000.2 209002.0 219001.4  
220001.0 225001.3 380001.8 526000.3

Concrete box culvert

J 450 J 451 K 979 T 991 X 179 X 866 328500.2  
348000.3

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	0	9	0	0	9
Excluded	8	20	0	0	28
	8	29	0	0	37 structures

# Riverdale Bridge

CHRI03

## GENERAL DATA

structure no.:	187000.4	city/town:	3.4 miles south of Nixa
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S36, T27N, R22W
		highway route:	County Road 187
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt through truss		
substructure:	concrete abutments and wingwalls with concrete pier		
span number:	2	condition:	good
span length:	87.0'	alterations:	piers and north abutment extended
total length:	175.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.6'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; hip vertical: 1 square eyebar; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal strut: angle A-frame with decorative lacing; portal builder's plate: 1906 / THE CANTON BRIDGE Co. BUILDERS / CANTON OHIO

## HISTORICAL DATA

erection date:	1906
erection cost:	\$2990.00
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Jones and Laughlin Steel Company, Pittsburgh PA
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 187000.4; Christian County Court Record, Book 11: 12 June 1906, 10 August 1906, (contract) 17 December 1906, 5 February 1907, 9 May 1907, 10 May 1907, 29 May 1907, located at Christian County Courthouse, Ozark, Missouri; Fraserdesign, "Riverdale Bridge: Preliminary Determination of NRHP Eligibility," 8 March 1991; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	45
evaluation:	NRHP determined non-eligible (typically configured example of common structural type)
inventoried by:	Clayton B. Fraser 26 February 1992

# Riverside Bridge

CHRI04

## GENERAL DATA

structure no.:	209001.5	city/town:	2.8 miles north of Ozark
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S14, T27N, R21W
		highway route:	County Road 209
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 6-panel, pin-connected Pratt through truss with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	good
span length:	100.0'	alterations:	guardrail, deck and approach spans replaced
total length:	274.0'	floor/decking :	concrete over corrugated steel deck with steel stringers
roadway width:	11.5'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 1 square looped eyebar, 2 channels with lacing; diagonal: 2 looped square eyebars; counter: 1 round eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field- bolted to vertical; guardrail: 2 channels; portal strut: angle A-frame with decorative lacing; portal builder's plate: 1909 / THE CANTON BRIDGE Co. BUILDERS / CANTON OHIO

## HISTORICAL DATA

erection date:	1909
erection cost:	\$3648.00 (contract amount)
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Cambria Steel Company, Pittsburgh PA
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 209001.5; Christian County Court Record, Book 12: July 1909, 4 August 1909, 28 September 1909, 14 February 1910, 8 March 1910, located at Christian County Courthouse, Ozark, Missouri; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	45
evaluation:	NRHP non-eligible (typical example of common bridge type)

inventoried by: Clayton B. Fraser 26 February 1992

# Green Bridge

CHRI05

## GENERAL DATA

structure no.:	249000.3	city/town:	2.4 miles northeast of Ozark
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S18, T27N, R20W
		highway route:	County Road 249
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 7-panel, pin-connected Pratt through truss with steel girder approach span		
substructure:	concrete abutments and wingwalls with steel cylinder piers		
span number:	1	condition:	good
span length:	120.0'	alterations:	deck, guardrails, abutments, wingwalls replaced in 1977
total length:	280.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.8'	other features:	upper chord and inclined end post: 2 channels with lacing and cover plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; 1 looped square eyobar; diagonal: 2 looped rectangular eyebars; counter: 2 looped square eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: channel; portal bracing: angle A-frame with decorative lacing; portal builder's plate: 1912 / THE CANTON BRIDGE Co. BUILDERS / CANTON OHIO

## HISTORICAL DATA

erection date:	1912
erection cost:	contract: \$6300.00 for two bridges
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Cambria Steel Company, Pittsburgh PA
contractor :	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 249000.3; Christian County Court Record, Book 13: 2 January 1912, 8 February 1912, 6 March 1912, 6 April 1912, 9 August 1912, 5 September 1912, 7 November 1912, 9 November 1912, located at Christian County Courthouse, Ozark, Missouri; <u>Ozark Headliner</u> , 7 January 1988; field inspection by Clayton Fraser, 26 January 1990.

## Green Bridge

---

sign. rating: 39

evaluation: NRHP non-eligible (typical example with poor physical integrity)

inventoried by: Clayton B. Fraser 26 February 1992

# Reed Ford Bridge

---

CHRI06

## GENERAL DATA

structure no.:	262002.8	city/town:	3.1 miles north of Sparta
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S14, T27N, R20W
		highway route:	County Road 262
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 8-panel, pin-connected Pratt through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers, with steel pile bent piers at approach spans		
span number:	1	condition:	good
span length:	140.0'	alterations:	none
total length:	250.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.4'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing, 2 angles connected with battens to guardrail; diagonal: 2 punched rectangular eyebars; counter: square and round looped eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal strut: 2 angles

## HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	Missouri State Highway Department (possible)
fabricator :	Illinois Steel Company, Chicago IL
contractor:	Pioneer Construction Company, Kansas City MO (probable)
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 262002.8; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	34
evaluation:	NRHP non-eligible (partially documented, typical example of common bridge type)

inventoried by: Clayton B. Fraser    26 February 1992

# Jenkins Ford Bridge

CHRI07

## GENERAL DATA

structure no.:	292002.2	city/town:	3.0 miles northeast of Sparta
county:	Christian	feature inters.:	Finley Creek
		cadastral grid:	S18, T27N, R19W
		highway route:	County Road 292
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 6-panel, pin-connected Pratt through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers; steel pile bent piers at approaches		
span number:	1	condition:	good
span length:	100.0'	alterations:	abutment replaced
total length:	200.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.6'	other features:	upper chord and inclined end post: 2 channels with lacing and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 1 looped square eyebar, 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 looped round eyerod or 2 looped square eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal strut: angle A-frame with decorative lacing; portal builder's plate: 1914 THE CANTON BRIDGE Co. BUILDERS CANTON, OHIO; end post dedication plate: 1914 JAS. J. WILLIAMS JNO. W. ST. JOHN JAS. H. HILL - COUNTY COURT WALTER E. KELTNER - CLERK I.H. JOHNSON - H. ENG'R.

## HISTORICAL DATA

erection date:	1914
erection cost:	\$4885.00 (contract amount)
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Cambria Steel Company, Pittsburgh PA
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 292002.2; Christian County Court Record, Book 14: 2 June 1914, located at Christian County Courthouse, Ozark, Missouri; field inspection by Clayton Fraser, 26 January 1990.



## Jenkins Ford Bridge

---

sign. rating: 39

evaluation: NRHP non-eligible (typical example, with substructural alterations)

inventoried by: Clayton B. Fraser    26 February 1992

# Roberts Ford Bridge

---

CHRI08

## GENERAL DATA

structure no.:	306000.8	city/town:	9.0 miles northeast of Sparta
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S31, T28N, R18W
		highway route:	County Road 306
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt pony truss		
substructure:	steel pile bent abutments and pier with timber wingwalls		
span number:	2	condition:	fair
span length:	80.0'	alterations:	unknown
total length:	160.0'	floor/decking :	timber deck
roadway width:	11.6'	other features:	guardrail: steel angle

## HISTORICAL DATA

erection date:	1919
erection cost:	\$5500.00 (engineer's estimate)
designer:	Christian County Surveyor
fabricator :	unknown
contractor:	Pioneer Construction Company, Kansas City MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 306000.8; Christian County Court Record, Book 16: 14 April 1918, 9 June 1919, 7 July 1919, located at Christian County Courthouse, Ozark, Missouri.
sign. rating:	42
evaluation:	NRHP non-eligible (typical example of common bridge type)

Inventoried by: Clayton B. Fraser    26 February 1992

# McCracken Street Bridge

CHRI09

## GENERAL DATA

structure no.:	328500.1	city/town:	north edge of Ozark
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S23, T27N, R21W
		highway route:	McCracken Street
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Baltimore through truss  
substructure: concrete abutments, wingwalls and pier

span number:	2	condition:	good
span length:	100.0'	alterations:	none
total length:	204.0'	floor/decking :	asphalt over concrete deck with steel stringers
roadway width:	18.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: 4 angles with batten plates; diagonal: 4 angles with batten plates; lateral bracing: 1 angle; strut: 4 angles with lacing, braced; floor beam: I-beam, field-bolted to vertical; guardrail: steel gaspipe; portal strut: angles with lacing and gusset plates

## HISTORICAL DATA

erection date: 1922  
erection cost: \$17,617.90  
designer: Missouri State Highway Department  
fabricator : Carnegie Steel Company, Pittsburgh PA;  
Illinois Steel Company, Chicago IL  
contractor: Pioneer Construction Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 328500.1; Missouri State Highway Commission, **Fourth Biennial Report**: 1923-24, p. 119; Missouri State Highway Department Primary System Bridge Record (abandoned or void-due-to-relocation structures), located at Bridge Division, MHTD, Jefferson City MO; Bridge Drawings G-325, located at MHTD, Jefferson City MO; field inspection by Clayton Fraser, 26 January 1990.

sign. rating: 73  
evaluation: NRHP eligible (a rare example of MSHD truss experimentation)

inventoried by: Clayton B. Fraser    26 February 1992

# Hawkins Ford Bridge

---

CHRI10

## GENERAL DATA

structure no.:	382000.4	city/town:	5.2 miles southwest of Nixa
county:	Christian	feature inters.:	Finley River
		cadastral grid:	S10, T26N, R22W
		highway route:	county road
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt pony truss		
substructure:	stone and concrete abutments with concrete wingwalls and pier		
span number:	2	condition:	good
span length:	80.0'	alterations:	trusses moved to this location, 1966
total length:	160.0'	floor/decking :	timber deck over timber and steel stringers
roadway width:	11.7'	other features:	upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped square eye-bars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date:	1915
erection cost:	unknown
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Cambria Steel Company, Pittsburgh PA
contractor :	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal; Structure Number 382000.4; Christian County Court Record, Book 14: 22 December 1914, located at Christian County Court-house, Ozark, Missouri; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	32
evaluation:	NRHP non-eligible (common bridge type, moved)

inventoried by: Clayton B. Fraser    26 February 1992

# Red Bridge

CHRI11

## GENERAL DATA

structure no.:	433000.4	city/town:	10.5 miles southeast of Ozark
county:	Christian	feature inters.:	Bull Creek
		cadastral grid:	S8, T25N, R20W
		highway route:	County Road H14
		highway distr.:	8
		current owner:	Christian County

## STRUCTURAL DATA

superstructure:	steel, 3-panel, pin-connected Pratt pony truss		
substructure:	concrete abutments, wingwalls and piers (with rock backfill at abutments)		
span number:	3	condition:	good
span length:	86.0'	alterations:	none
total length:	255.0'	floor/decking :	timber deck (planks laid on end)
roadway width:	11.5'	other features:	upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped square eyebars with turnbuckles; floor beam: I-beam field bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date:	1915
erection cost:	unknown
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Jones and Laughlin Steel Company, Pittsburgh PA
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 433000.4; Christian County Court Record, Book 14: 22 December 1914, 3 November 1915, located at Christian County Courthouse, Ozark, Missouri; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	52
evaluation:	NRHP possibly eligible (uncommon multiple-span example of common truss type)

inventoried by: Clayton B. Fraser    26 February 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Riverdale Bridge  
MHTD: 187000.4

CHRI03

**DATE(S) OF CONSTRUCTION**

1906

**LOCATION**

County Road 187 over Finley River; S36, T27N, R22W  
3.4 miles south of Nixa; Christian County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** determined NRHP non-eligible (score: 43)

**CONDITION**

good

**OWNER**

Christian County

span number: 2  
span length: 87.0'  
total length: 175.0'  
roadway wdt.: 11.6'

superstructure: steel, 5-panel, pin-connected Pratt through truss  
substructure: concrete abutments and wingwalls with concrete pier  
floor/decking: timber deck over steel stringers  
other features: upper chord/end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; hip vertical: 1 looped square eyebar; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal strut: angle A-frame with decorative lacing; portal builder's plate: 1906 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

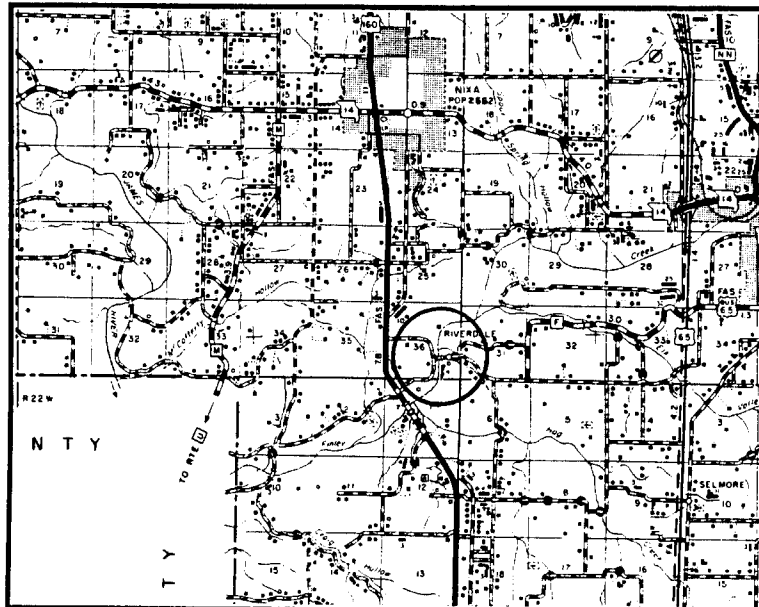
According to Christian County Court records, in June 1906 county surveyor I.H. Johnson was instructed to advertise for bids for the construction of three bridges over the Finley River. One structure was to be located at Linden, another crossed the river at the Arkansas Ford, and the third proposed structure would cross the river just downstream from the Riverdale Mill, some 17 miles from the Springfield Station. This last bridge consisted of two 87-foot-by-12-foot through trusses, with an overall length of 174 feet. In August the county court awarded a contract to fabricate and build the Linden and Riverdale bridges. The agreement stipulated that Canton would supply materials to erect the bridges' super- and substructures, except for the approach fills, by that Christmas. The Riverdale Bridge was erected as a two-span Pratt truss, using steel fabricated in Pittsburgh by the Jones and Laughlin steel mills. Construction was completed by the end of January 1907; on February 5th a warrant in the amount of \$2,990.00 was issued to Canton. Since its original construction, the Riverdale Bridge has been raised at the piers and at the north abutment. Otherwise, it retains a high degree of integrity and continues to serve its original purpose.

The Riverdale Bridge is a typical, but structurally undistinguished, short-span through truss. Built by one of the most prolific bridge contractors in Missouri during a period of intense bridge construction activity, it is representative of the technological trends for the period. The twin-span configuration is noteworthy, but not technologically significant.

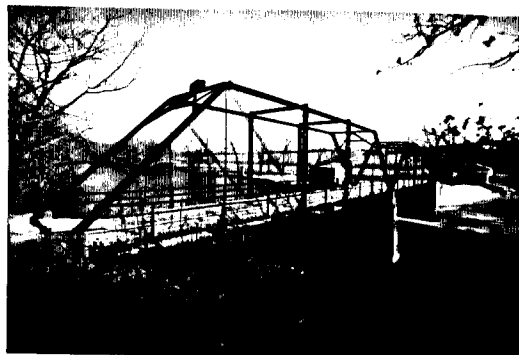
---

**NAME(S) OF STRUCTURE**

Riverdale Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 187000.4; Christian County Court Record, Book 11: 12 June 1906, 10 August 1906, (contract) 17 December 1906, 5 February 1907, 9 May 1907, 10 May 1907, 29 May 1907, located at Christian County Courthouse, Ozark, Missouri; Fraserdesign, "Riverdale Bridge: Preliminary Determination of NRHP Eligibility," 8 March 1991; field inspection by Clayton Fraser and Paula Sutton, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

26 February 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Riverside Bridge  
MHTD: 209001.5

CHRI04

**DATE(S) OF CONSTRUCTION**

1909

**LOCATION**

County Road 209 over Finley River; S14, T27N, R21W  
2.8 miles north of Ozark; Christian County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 43)

**CONDITION**

good

**OWNER**

Christian County

span number: 2  
span length: 100.0'  
total length: 274.0'  
roadway wdt.: 11.5'

superstructure: steel, 6-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete over corrugated steel deck with steel stringers  
other features: upper chord/end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 1 square looped eyebar, 2 channels with lacing; diagonal: 2 looped square eyebars; counter: 1 round eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field- bolted to vertical; guardrail: 2 channels; portal strut: angle A-frame with decorative lacing; portal builder's plate: 1909 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

In August 1909 the Christian County Court received bids for a bridge that would span Finley Creek at the Old Wagon Bridge site by the Cumming Factory north of Ozark. The court that month contracted with the Canton Bridge Company to fabricate and build the two-span truss for \$3648.00. Canton had poured the concrete piers and abutments by the end of September; by the end of the year the Ohio-based company had fabricated the trusses from steel rolled by Cambria and erected them on-site. The Riverside Bridge's two channel spans each measure 100 feet in length, and are approached on one side by steel stringer spans (since replaced). The deck and guardrails have also been replaced. The structure, otherwise, has maintained its original integrity, and continues to carry vehicular traffic.

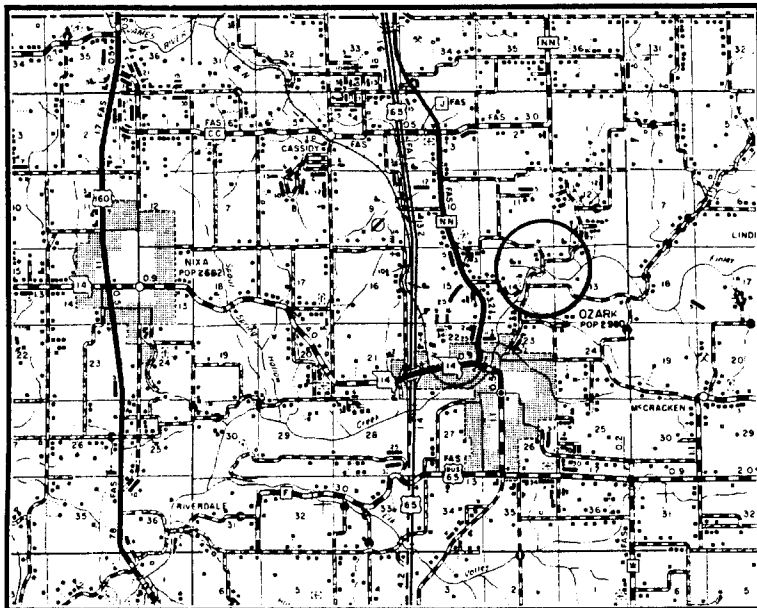
From the turn of the century until the late 1910s, the Canton Bridge Company designed, fabricated and erected virtually all of Christian County's truss bridges. The Riverside Bridge reflects Canton's proclivity for pin-connected Pratt trusses. It typifies medium-scale truss design and detailing for its period of construction - and is one of thousands of Pratt through trusses built throughout the state in the early 20th century. With unremarkable design and modest dimensions, the Riverside Bridge is one of hundreds of such trusses that remain in place on Missouri's county roads.



---

**NAME(S) OF STRUCTURE**

Riverside Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 209001.5; Christian County Court Record, Book 12: July 1909, 4 August 1909, 28 September 1909, 14 February 1910, 8 March 1910, located at Christian County Courthouse, Ozark, Missouri; field inspection by Clayton Fraser and Paula Sutton, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

26 February 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

McCracken Street Bridge  
MHTD: 328500.1

CHRI09

**DATE(S) OF CONSTRUCTION**

1923

**LOCATION**

McCracken Street over Finley River; S23, T27N, R21W  
north edge of Ozark; Christian County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / roadway bridge

**RATING** NRHP eligible (score: 73)

**CONDITION**

excellent

**OWNER**

Christian County

span number: 2  
span length: 100.0'  
total length: 204.0'  
roadway wdt.: 18.0'

superstructure: steel, 5-panel, rigid-connected Baltimore through truss  
substructure: concrete abutments, wingwalls and pier  
floor/decking: asphalt over concrete deck with steel stringers  
other features: upper chord/end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: 4 angles with batten plates; diagonal: 4 angles with batten plates; lateral bracing: 1 angle; strut: 4 angles with lacing, braced; floor beam: I-beam, field-bolted to vertical; guardrail: steel gaspipe; portal strut: angles with lacing and gusset plates

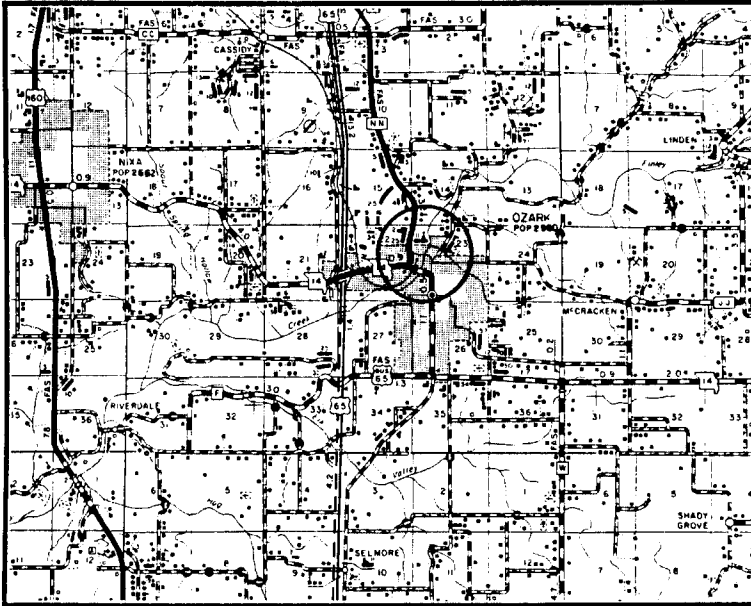
The McCracken Street Bridge spans the Finley River on the northern edge of Ozark, the County Seat of Christian County. The structure was built by the Missouri Highway and Transportation Department to carry U.S. Highway 65. Designed late in 1922 by engineers for the Missouri State Highway Department, the bridge was let for bids in November. On December 27th, MSHD contracted with the Pioneer Construction Company of Kansas City to build the concrete abutments and pier and erect the two rigid-connected trusses. Using steel components rolled by Carnegie and Illinois, Pioneer erected the structure in 1923 for \$17,617.90. The McCracken Street Bridge carried the U.S. highway until it was turned over to Christian County in September 1962 in a route re-alignment. With no major alterations, the bridge retains a high degree of physical integrity.

The Missouri State Highway Department reported in its 1923-24 **Biennial Report**: "During the past two years the Bureau [of Bridges] has been largely engaged in preparing special designs for the bridges needed on the various road projects initiated during this time. The designs embrace structures ranging in length from 12 feet to 1,200 feet and costing from \$1,200 to \$121,000." Highway department bridge engineers relied primarily on straightforward Pratts for their standard medium-span through trusses, but they experimented for a brief period as well with rigid-connected Baltimore trusses - Pratt configurations with subdivided panels. The McCracken Street Bridge is one of only two such Baltimore-truss structures remaining in place from this period (other: the Honey Creek Bridge (GRUN01). It therefore enjoys a degree of technological significance for its representation of experimental design conducted during the formative years of the highway department.

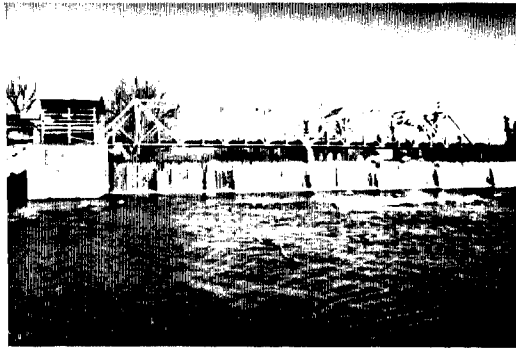
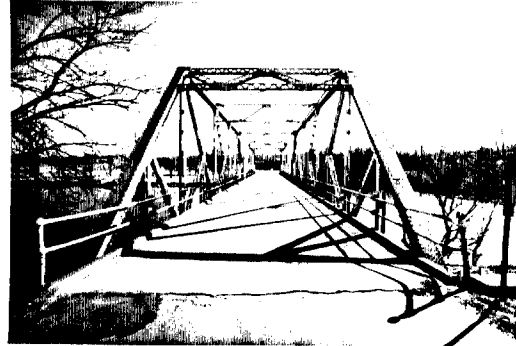
---

**NAME(S) OF STRUCTURE**

McCracken Street Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 328500.1; Missouri State Highway Commission, **Fourth Biennial Report: 1923-24**, p. 119; Missouri State Highway Department Primary System Bridge Record (abandoned or void-due-to-relocation structures), located at Bridge Division, MHTD, Jefferson City MO; Bridge Drawings G-325, located at MHTD, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

26 February 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Red Bridge  
MHTD: 433000.4

CHRI11

**DATE(S) OF CONSTRUCTION**

1915

**LOCATION**

County Road H14 over Bull Creek; S8, T25N, R20W  
10.5 miles southeast of Ozark; Christian County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 52)

**CONDITION**

good

**OWNER**

Christian County

span number: 3	superstructure: steel, 3-panel, pin-connected Pratt pony truss
span length: 86.0'	substructure: concrete abutments, wingwalls and piers (with rock backfill at abutments)
total length: 255.0'	floor/decking: timber deck (planks laid on end)
roadway wdt.: 11.5'	other features: upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 looped square eyebars with turnbuckles; floor beam: I-beam field bolted to vertical; guardrail: 2 angles

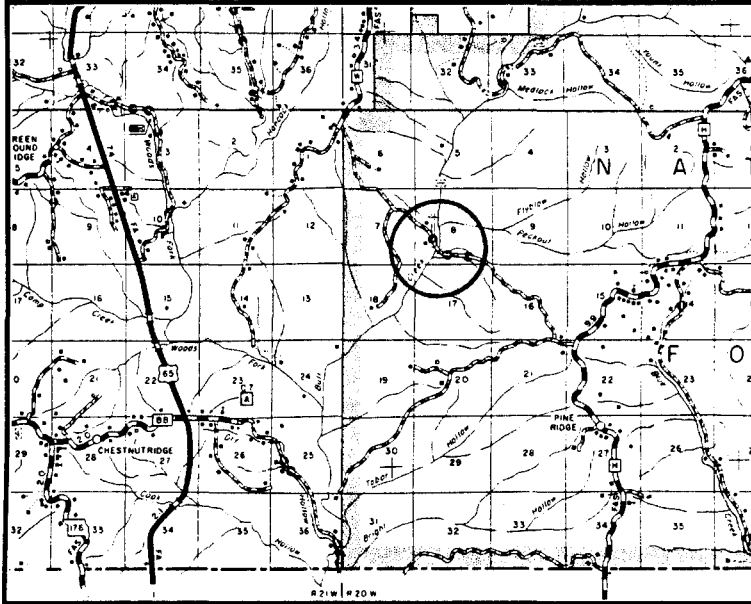
The Red Bridge carries county road H14 across Bull Creek approximately 10½ miles southeast of Ozark. It was built by the Canton Bridge Company with steel rolled by the Jones and Laughlin Steel Company of Pittsburgh. With an overall length of 255 feet, the structure is a three-span, pin-connected Pratt pony truss. Because the truss has not been substantially altered, it retains a high degree of physical integrity.

From the turn of the century until the late 1910s, the Canton Bridge Company designed, fabricated and erected virtually all of Christian County's truss bridges. The Red Bridge reflects Canton's proclivity for pin-connected Pratt trusses. It typifies medium-scale truss design and detailing for its period of construction - and is one of thousands of Pratt pony trusses built throughout the state in the early 20th century and one of hundreds identified by the historic bridge inventory. Although its detailing is typical, the structure is distinguished by its multiplicity of spans. Multiple-span pony trusses are a relative rarity in Missouri, and the Red Bridge is a relatively long-span, particularly well-preserved example.

---

**NAME(S) OF STRUCTURE**

Red Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 433000.4; Christian County Court Record, Book 14: 22 December 1914, 3 November 1915, located at Christian County Courthouse, Ozark, Missouri; field inspection by Clayton Fraser and Paula Sutton, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

26 February 1990

---

# DALLAS COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*DALL01	J 782	Bennett Springs Bridge	<b>2-105'</b> concrete open spandrel arch 1931 Martin Wunderlich
*DALL02	X 195	Niangua River Bridge	<b>1-130'</b> pinned Pratt through truss c1910 moved by division maint. crew (replaced)
DALL03	109000.3	Culvert	
*DALL04	310000.7	Dousinberry Creek Bridge	<b>1- 40'</b> pinned Pratt half-hip pony truss c1910 Canton Bridge Co., Canton OH

## EXCLUDED:

### Steel stringer

L 339	114000.3	152000.3	224R01.0	353000.6	363000.3	380000.7
-------	----------	----------	----------	----------	----------	----------

### Concrete girder

G 911R	H 834R	X 60	238000.0	433000.1
--------	--------	------	----------	----------

### Concrete slab

G 910R	G 912R	S 454	030001.2	132000.9	170001.5	180000.3	204000.3
216000.2	230001.6	265000.8	305R00.4				

### Concrete box / steel pipe culvert

H 818	H 820	H 821	H 822	H 823	H 835	H 836
H 837	H 838	J 113	K 206	L 215	L 282	T 34
X 678	012000.6	381000.3				

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	1	0	0	3
Excluded	22	19	0	0	41
	24	20	0	0	44 structures

# Bennett Springs Bridge

DALL01

## GENERAL DATA

structure no.:	J 782	city/town:	0.2 mile west of Bennett Springs
county:	Dallas	feature inters.:	Niangua River
		cadastral grid:	S25, T35N, R18W
		highway route:	State Highway 64
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete, 2-rib, open spandrel arch, with 2-span concrete girder at south approach and 4-span concrete girder at north approach		
substructure:	concrete abutments, wingwalls and spill-through piers, with fluted pylons (rock and stone blocks under abutment and wingwalls on north side)		
span number:	2	condition:	good
span length:	105.0'	alterations:	none
total length:	467.0'	floor/decking :	asphalt over concrete
roadway width:	22.0'	other features:	Missouri State Highway Department standard concrete guardrails with square balusters and paneled bulkheads; bridge plate: MISSOURI HIGHWAY DEPARTMENT / BRIDGE No. J782 / 1931

## HISTORICAL DATA

erection date:	1931
erection cost:	\$39,397.50
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Martin Wunderlich
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 782; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.
sign. rating:	49
evaluation:	NRHP possibly eligible (typically configured example of MSHD open-spandrel arch design)

inventoried by: Clayton B. Fraser    9 March 1992

# Niangua River Bridge

DALL02

## GENERAL DATA

structure no.:	X 195	city/town:	5.2 miles north of Long Lane
county:	Dallas	feature inters.:	Niangua River
		cadastral grid:	S8, T34N, R18W
		highway route:	State Supplementary Route K
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 7-panel, pin-connected Pratt through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and solid concrete piers		
span number:	1	condition:	good
span length:	130.0'	alterations:	truss moved, 1936
total length:	295.0'	floor/decking :	asphalt-covered concrete over steel stringers
roadway width:	20.0'	other features:	upper chord and inclined end post: 2 channels with double lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with double lacing (2 rectangular eyebars at hip); diagonal: 2 rectangular eyebars; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to lower chord pins; guardrail: 2 wide channels

## HISTORICAL DATA

erection date:	c1910; moved 1936
erection cost:	unknown
designer:	unknown
fabricator :	Scullin Steel Company
contractor :	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 195; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.
sign. rating:	27
evaluation:	NRHP determined non-eligible (typically configured, inadequately documented example of common structural type moved to this location)

inventoried by: Clayton B. Fraser    9 March 1992



# Dousinberry Creek Bridge

DALL04

## GENERAL DATA

structure no.:	310000.7	city/town:	2.7 miles southeast of Long Lane
county:	Dallas	feature inters.:	Dousinberry Creek
		cadastral grid:	S11, T33N, R18W
		highway route:	County Road 310
		highway distr.:	8
		current owner:	Dallas County

## STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt half-hip pony truss  
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	40.0'	alterations:	none
total length:	40.0'	floor/decking :	timber deck over steel stringers
roadway width:	10.9'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: round eyerods with turnbuckles; lateral bracing: round rod with threaded ends; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles; decorative acorn-shaped finials (broken) at hips

## HISTORICAL DATA

erection date: c1910  
erection cost: unknown  
designer: Canton Bridge Company, Canton OH  
fabricator : Canton Bridge Company, Canton OH;  
Jones and Laughlin Steel Company, Pittsburgh PA  
contractor: Canton Bridge Company, Canton OH  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 310000.7; field inspection by Clayton Fraser, 30 January 1990.  
sign. rating: 30  
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 9 March 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bennett Springs Bridge

MHTD: J 782

**LOCATION**

State Highway 64 over Niangua River; S25, T35N, R18W  
0.2 mile west of Bennett Springs; Dallas County, Missouri

DALL01

**DATE(S) OF CONSTRUCTION**

1931

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP potentially eligible (score: 49)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 2  
span length: 105.0'  
total length: 467.0'  
roadway wdt.: 22.0'

superstructure: concrete, 2-rib, open spandrel arch, with 2-span concrete girder at south approach and 4-span concrete girder at north approach  
substructure: concrete abutments, wingwalls and spill-through piers, with fluted pylons (rock and stone blocks under abutment and wingwalls on north side)  
floor/decking: asphalt over concrete  
other features: Missouri State Highway Department standard concrete guardrails with square balusters and paneled bulkheads; bridge plate: **MISSOURI HIGHWAY DEPARTMENT / BRIDGE No. J782 / 1931**

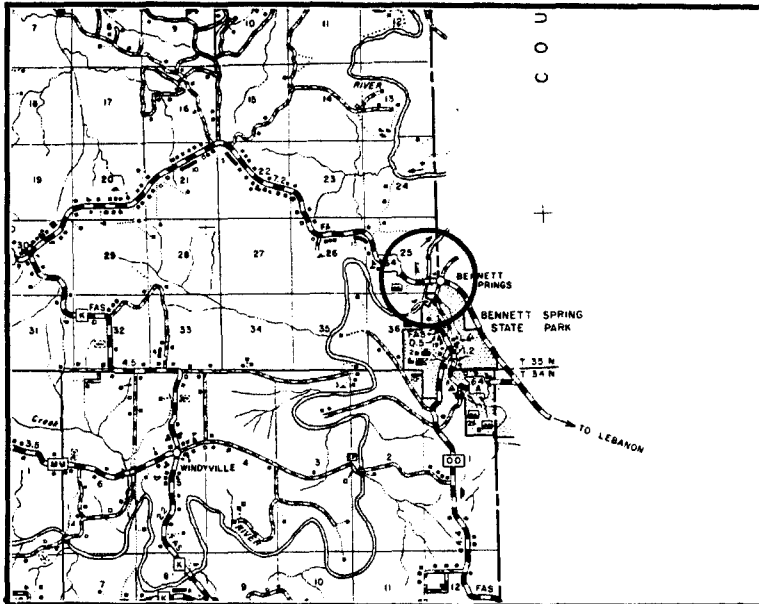
This multiple-span concrete bridge carries Missouri State Highway 64 over the Niangua River on the outskirts of the small town of Bennett Springs, in eastern Dallas County. The bridge features a pair of two-rib, open spandrel arches, flanked on both sides by concrete deck girder approach spans. The approaches and channel spans are all supported by concrete abutments and spill-through piers. The existing Bennett Springs Bridge dates to 1931. Early that year the Missouri State Highway Department designed this concrete structure to replace an earlier bridge at this crossing. In May 1931 competitive bids for the bridge's construction were received, and the highway commission awarded the contract to Martin Wunderlich for \$39,397.50. Since its completion, the Bennett Springs Bridge has carried relatively light highway traffic, in unaltered condition.

In the mid-1920s, the Missouri State Highway Department developed standard plans for an open spandrel concrete arch design. Ranging in span length from 80 feet to 150 feet, these arches featured two fairly massive ribs that supported vertical columns with splayed tops to support a partially cantilevered deck. The highway department built open spandrel arches to replace earlier steel or iron trusses at major river crossings throughout the state, but for some reason concentrated their construction in the Ozark region in southwest Missouri. Never very common, less than forty such bridges remain in place today. Built in Dallas County with a span length of 105 feet and an erection date of 1931, the Bennett Springs Bridge fits well within the mainstream of this construction trend. It is a well-preserved example of MSHD large-scale concrete bridge construction.

---

**NAME(S) OF STRUCTURE**

Bennett Springs Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 782; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser, 30 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

9 March 1990

---

# DOUGLAS COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv.No.	MHTD	Bridge Name	Description
*DOUG01	J 748	Twin Bridge	3-100' <b>concrete open spandrel arch</b> 1932 Glen E. Stoner
*DOUG02	J 749	Twin Bridge	2-100' <b>concrete open spandrel arch</b> 1932 Glen E. Stoner
*DOUG03	209003.0	Rome Bridge	2-100' <b>pinned Pratt through truss</b> 1914 J.H. Murray
*DOUG04	283001.4	Dean Ford Bridge	2- 96' <b>pinned Pratt through truss</b> 1915 J.H. Murray

## EXCLUDED:

### Steel stringer

T 154 T 756 T 972 X 27

### Concrete girder

G 369R1 H 344 J 168 J 437 J 663 J 664 T 609  
T 610 X 852 010000.2 094001.2

### Concrete slab

082000.2 095000.3 132000.1 174001.3 197004.4 205002.2 226000.1  
281003.9

### Concrete box culvert

G 599R1 H 425 J 130 J 436 R 836 T 611 W 123  
W 124 Y 627 Y 628 256003.6 301003.4

### Timber stringer

035000.1 260002.8

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	2	0	0	4
Excluded	23	14	0	0	37
	25	16	1	0	41 structures

# Twin Bridge

DOUG01

## GENERAL DATA

structure no.:	J 748	city/town:	14.2 miles southeast of Vanzant
county:	Douglas	feature inters.:	North Fork of White River
		cadastral grid:	S26, T25N, R11W
		highway route:	State Highway 14
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete, two-rib, open spandrel arch with concrete deck girder approaches		
substructure:	concrete abutments, wingwalls and spill-through piers		
span number:	3	condition:	good
span length:	100.0'	alterations:	none
total length:	465.0'	floor/decking :	asphalt over concrete
roadway width:	20.0'	other features:	concrete guardrails (Missouri State Highway Department standard design); curved alignment; bridge plate: MISSOURI HIGHWAY DEPT. / BRIDGE No. J748 / 1931

## HISTORICAL DATA

erection date:	1931-32
erection cost:	\$33,209.18
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Glen E. Stoner
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 748; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; Steve Cusick, "Twin Bridges Span the Years," <b>Springfield Daily News</b> , 6 May 1986; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	50
evaluation:	NRHP possibly eligible (well-preserved, multiple-span example of MSHD standard bridge configuration of the 1930s)

inventoried by: Clayton B. Fraser    9 March 1993

# Twin Bridge

---

DOUG02

## GENERAL DATA

structure no.:	J 749	city/town:	14.4 miles southeast Vanzant
county:	Douglas	feature inters.:	Spring Creek
		cadastral grid:	S27/34, T25N, R11W
		highway route:	State Highway 14
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete, two-rib, open spandrel arch, with concrete girder approaches, skewed		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	good
span length:	100.0'	alterations:	none
total length:	316.0'	floor/decking :	asphalt over concrete
roadway width:	20.0'	other features:	concrete guardrails (standard Missouri State Highway design); curved alignment; bridge plate: MISSOURI HIGHWAY DEPT. / BRIDGE No. J749 / 1931

## HISTORICAL DATA

erection date:	1931-32
erection cost:	\$24,651.64
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Glen E. Stoner
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 749; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; Steve Cusick, "Twin Bridges Span the Years," <b>Springfield Daily News</b> , 6 May 1986; field inspection by Clayton Fraser, 26 January 1990.
sign. rating:	49
evaluation:	NRHP possibly eligible (well-preserved, multiple-span example of MSHD standard bridge configuration of the 1930s)

Inventoried by: Clayton B. Fraser    9 March 1993

# Rome Bridge

DOUG03

## GENERAL DATA

structure no.:	209003.0	city/town:	Rome
county:	Douglas	feature inters.:	Beaver Creek
		cadastral grid:	S23, T25N, R17W
		highway route:	County Road 209
		highway distr.:	8
		current owner:	Douglas County

## STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt through truss  
substructure: concrete abutments, wingwalls and pier

span number:	2	condition:	fair
span length:	100.0'	alterations:	none
total length:	200.0'	floor/decking :	concrete on corrugated steel, over steel stringers
roadway width:	12.0'	other features:	upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round rod with turn-buckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles with lacing; floor beam: I-beam, field bolted to vertical; guardrail: 2 channels; bridge plate: [lists county commissioners, but text is illegible]

## HISTORICAL DATA

erection date: 1913-14  
erection cost: \$4683.00  
designer: W.S. Dunn, Douglas County Surveyor  
fabricator : Kansas City Bridge Company, Kansas City MO;  
Illinois Steel Company, Chicago IL  
contractor: J.H. Murray, Ava MO  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 209003.0; Douglas County Court Minutes, Book 3: page 102 (27 June 1913), page 118 (9 August 1913), page 121 (2 September 1913), page 127 (4 November 1913), page 185 (7 February 1914), page 278 (3 March 1915), page 306 (8 June 1915) - located at Douglas County Courthouse, Ava MO; field inspection by Clayton Fraser, 26 January 1990.

## Rome Bridge

---

sign. rating: 50  
evaluation: NRHP possibly eligible (well-preserved, relatively late example of main-stay truss type)

Inventoried by: Clayton B. Fraser 9 March 1993



# Dean Ford Bridge

DOUG04

## GENERAL DATA

structure no.:	283001.4	city/town:	10.7 miles southeast of Vanzant
county:	Douglas	feature inters.:	North Fork of White River
		cadastral grid:	S18, T25N,R11W
		highway route:	County Road 283
		highway distr.:	8
		current owner:	Douglas County

## STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt through truss  
substructure: concrete abutments, wingwalls and pier

span number:	2	condition:	fair
span length:	96.0'	alterations:	none
total length:	193.0'	floor/decking :	concrete deck over steel stringers
roadway width:	12.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; counter: round rod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 2 latticed angles; floor beam: I-beam, field bolted to vertical; guardrail: 2 channels; bridge plate: 1914 / STEEL FURNISHED BY KANSAS CITY BRIDGE Co. / JAS. THOMPSON PRES. JUDGE / JASON A. NASH ASSOC. JUDGE / JNO. B. DEEDS ASSOC. JUDGE / E.C. BUNCH COUNTY CLERK / W.S. DUNN COUNTY SURVEYOR / J.H. MURRAY CONTRACTOR AND BUILDER

## HISTORICAL DATA

erection date: 1914-15  
erection cost: \$5700.00  
designer: W.S. Dunn, Douglas County Surveyor  
fabricator : Kansas City Bridge Company, Kansas City MO;  
Cambria Steel Company, Pittsburgh PA  
contractor: J.H. Murray, Ava MO  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 283001.4; Douglas County Court Minutes, Book 3: page 185 (9 May 1914), page 188 (20 June 1914), page 209 (12 August 1914), page 212 (8 September 1914), page 242 (15 December 1914), page 247 (12 January 1915), page 301 (10 May 1915), page 306 (8 June 1915) - located at Douglas County Court-house, Ava MO; field inspection by Clayton Fraser, 26 January 1990.

## Dean Ford Bridge

---

sign. rating: 50

evaluation: NRHP possibly eligible (well-preserved, relatively late example of main-stay truss type)

inventoried by: Clayton B. Fraser 9 March 1993

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Twin Bridge  
MHTD: J 748

DOUG01

**DATE(S) OF CONSTRUCTION**

1931-32

**LOCATION**

State Highway 14 over North Fork of White River; S26, T25N, R11W  
14.2 miles southeast of Vanzant; Douglas County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3

span length: 100.0'

total length: 465.0'

roadway wdt.: 20.0'

superstructure: concrete, two-rib, open spandrel arch with concrete deck girder approaches

substructure: concrete abutments, wingwalls and spill-through piers

floor/decking: asphalt over concrete

other features: concrete guardrails (Missouri State Highway Department standard design); curved alignment; bridge plate: **MISSOURI HIGHWAY DEPT. / BRIDGE No. J748 / 1931**

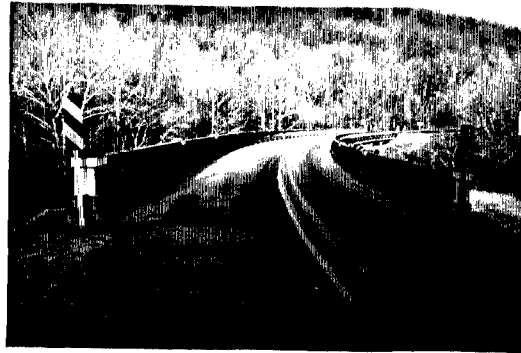
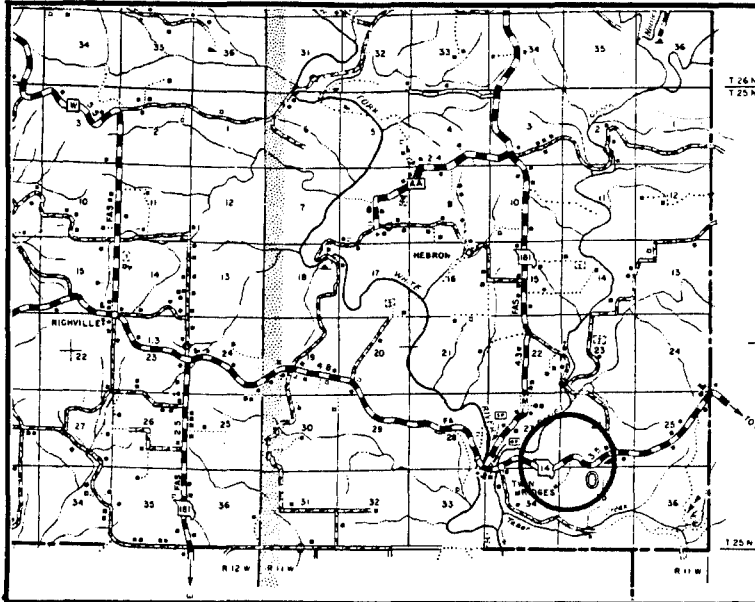
The Twin Bridges are located about fourteen miles southeast of Vanzant, in Douglas County's Richland Township. They were built in 1931-32 as part of an effort to extend State Highway 14 across the southeastern portion of the county. The contract for the two bridges was let to Glen E. Stoner on August 28, 1931. Built with concrete from nearby Olden, they were completed in June 1932 for a combined cost of \$57,860.74. One of the two bridges, J-748, is comprised of three 100-foot concrete open spandrel arches, with two concrete deck girder approach spans. Spanning the North Fork of the White River, with an overall length of 465 feet, it is the longer of the two bridges. The other of the Twin Bridges, J-749, is comprised of two 100-foot concrete open spandrel arches, with two concrete deck girder approach spans. With an overall length of 316 feet, it spans Spring Creek about two-tenths of a mile east of the North Fork Bridge. Both bridges are curved at about five degrees, and the Spring Creek crossing is slightly skewed. Although the two bridges are not identical, they have become known collectively as the Twin Bridges. At one time there was a post office at the site, but it apparently closed in the 1950s. A general store also operated by the bridges for many years, and more recently, the area has become a popular put-in spot for canoers.

In the 1920s and 1930s the Missouri State Highway Department developed plans for a number of concrete bridges that were erected on the state's highways. For concrete bridges with span lengths under 80 feet, filled spandrel arches were most often executed, while for longer-span bridges, the highway department instead typically opted for open spandrel designs. Single-span examples of the latter configuration were fairly common, but multiple-span open spandrel arches were built far less often. Approximately twenty multiple-span, open spandrel arches have been identified by the statewide bridge inventory. The Twin Bridges in Douglas County are significant among these as well-preserved, locally prominent examples. Only a handful of Missouri's open spandrel arches have more than three spans, and fewer, still, have individual span lengths greater than 100 feet.

---

**NAME(S) OF STRUCTURE**

Twin Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 748; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; Steve Cusick, "Twin Bridges Span the Years," *Springfield Daily News*, 6 May 1986; field inspection by Clayton Fraser, 26 January 1990.

---

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

9 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Twin Bridge  
MHTD: J 749

DOUG02

**DATE(S) OF CONSTRUCTION**

1931-32

**LOCATION**

State Highway 14 over Spring Creek; S27/34, T25N, R11W  
14.4 miles southeast Vanzant; Douglas County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 49)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 2

span length: 100.0'

total length: 316.0'

roadway wdt.: 20.0'

superstructure: concrete, two-rib, open spandrel arch, with concrete girder approaches, skewed

substructure: concrete abutments, wingwalls and piers

floor/decking: asphalt over concrete

other features: concrete guardrails (standard Missouri State Highway design); curved alignment; bridge plate: **MISSOURI HIGHWAY DEPT. / BRIDGE No. J749 / 1931**

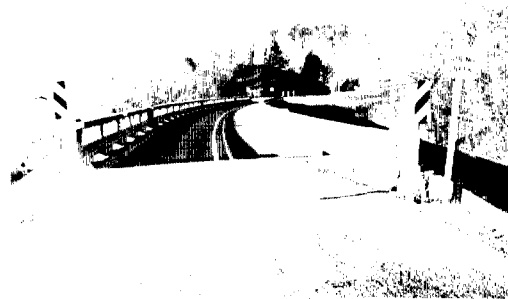
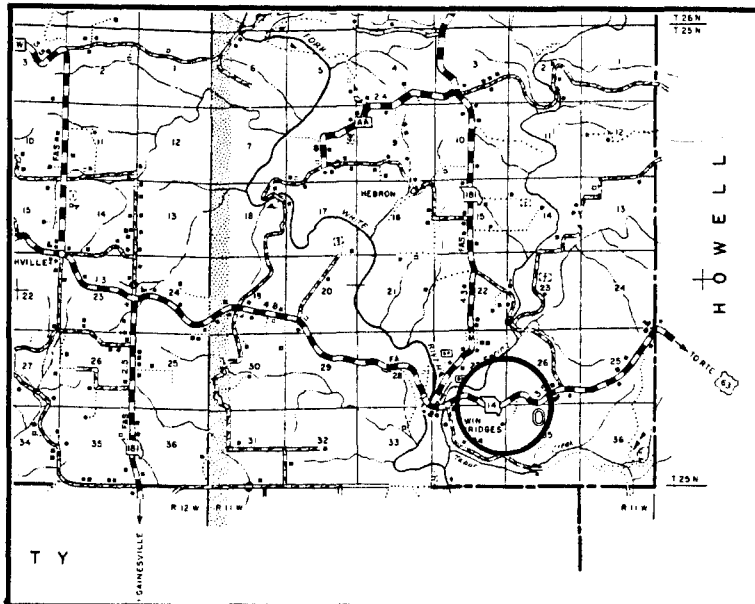
The Twin Bridges are located about fourteen miles southeast of Vanzant, in Douglas County's Richland Township. They were built in 1931-32 as part of an effort to extend State Highway 14 across the southeastern portion of the county. The contract for the two bridges was let to Glen E. Stoner on August 28, 1931. Built with concrete from nearby Olden, they were completed in June 1932 for a combined cost of \$57,860.74. One of the two bridges, J-748, is comprised of three 100-foot concrete open spandrel arches, with two concrete deck girder approach spans. Spanning the North Fork of the White River, and with an overall length of 465-feet, it is the longer of the two bridges. The other of the Twin Bridges, J-749, is comprised of two 100-foot concrete open spandrel arches, with two concrete deck girder approach spans. With an overall length of 316-feet, it carries Highway 14 across Spring Creek about two-tenths of a mile east of the North Fork Bridge. Both bridges are curved at about five degrees, and the Spring Creek crossing is slightly skewed. Although the two bridges are not identical, they have become known collectively as the Twin Bridges. At one time there was a post office at the site, but it apparently closed in the 1950s. A general store also operated by the bridges for many years, and more recently, the area has become a popular put-in spot for canoers.

In the 1920s and 1930s the Missouri State Highway Department developed plans for a number of concrete bridges that were erected on the state's highways. For concrete bridges with span lengths under 80 feet, filled spandrel arches were most often executed, while for longer-span bridges, the highway department instead typically opted for open spandrel designs. Single-span examples of the latter configuration were fairly common, but multiple-span open spandrel arches were built far less often. Approximately twenty multiple-span, open spandrel arches have been identified by the statewide bridge inventory. The Twin Bridges in Douglas County are significant among these as a well-preserved and locally prominent example, with a notable 100-foot span length. Only a handful of Missouri's open spandrel arches have individual span lengths greater than 100-feet.

---

**NAME(S) OF STRUCTURE**

Twin Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 749; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; Steve Cusick, "Twin Bridges Span the Years," *Springfield Daily News*, 6 May 1986; field inspection by Clayton Fraser, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

9 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Rome Bridge  
MHTD: 209003.0

DOUG03

**DATE(S) OF CONSTRUCTION**

1913-14

**LOCATION**

County Road 209 over Beaver Creek; S23, T25N, R17W  
Rome; Douglas County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

fair

**OWNER**

Douglas County

span number: 2

span length: 100.0'

total length: 200.0'

roadway wdt.: 12.0'

superstructure: steel, 6-panel, pin-connected Pratt through truss

substructure: concrete abutments, wingwalls and pier

floor/decking: concrete on corrugated steel, over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round rod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles with lacing; floor beam: I-beam, field bolted to vertical; guardrail: 2 channels; bridge plate: [lists county commissioners, but text is illegible]

On June 27, 1913, the Douglas County Court ordered county surveyor W.S. Dunn to locate a bridge site at the town of Rome, on Beaver Creek. Dunn was to estimate the cost for a Class B bridge at this point and advertise for bids for construction the structure. Assisting Dunn in the survey was J.H. Murray, a local contractor from Ava who sometimes served the county in an unofficial capacity as a deputy highway engineer. Dunn and Murray completed the survey and design work for the Rome bridge in the summer of 1913, and on September 2 competitive bids were opened for its construction. Proposals were received from three regionally active bridge firms: the Midland Bridge Company, Kansas City Bridge Company and the Massillon Bridge Company. But the lowest bid was submitted by J.H. Murray himself, who offered to supply and erect the two pinned Pratt through trusses on a concrete substructure for \$4683.00. Murray received the contract, resigned his position as deputy highway engineer, and began work on the substructural excavation. He used two 100-foot spans fabricated by the Kansas City Bridge Company, erecting them over timber falseworks on concrete pier and abutments. After Murray completed the truss early the next year, the county hired J.B. Coonts to grade the approaches. The Rome Bridge completed, Murray was back on the job surveying bridge sites for the county later that year. The Rome Bridge has functioned in place since that time, without major alteration.

One of the Midwest's most prolific bridge fabricators, the Kansas City Bridge Company maintained an extensive catalogue of truss types, ranging from the exotic to the commonplace. KCB&Co, like most of the region's bridge builders of the time, relied heavily on pin-connected Pratt truss variants for its standard truss types. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design was characterized by upper chords and vertical members acting in compression and lower chords and diagonals that acted in tension. Its parallel



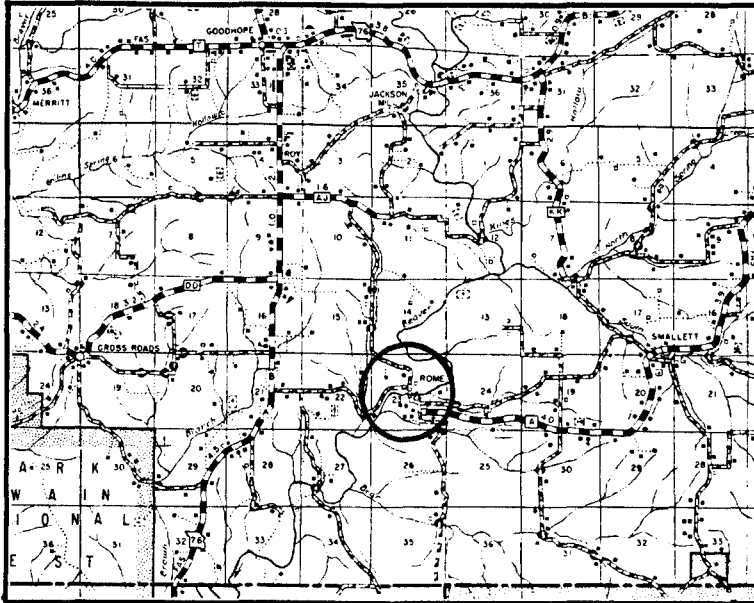


chords and equal panel lengths resulted in standardized sizes for the verticals, diagonals and chord members, making fabrication and assembly relatively easy. In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy of metal, and suitability for connecting to the floor and lateral systems." Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. The Rome Bridge is distinguished somewhat by its two-span configuration, but, with its 1913 fabrication date and 100 foot span length, it is structurally unremarkable among Missouri's trusses.

---

**NAME(S) OF STRUCTURE**

Rome Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 209003.0; Douglas County Court Minutes, Book 3: page 102 (27 June 1913), page 118 (9 August 1913), page 121 (2 September 1913), page 127 (4 November 1913), page 185 (7 February 1914), page 278 (3 March 1915), page 306 (8 June 1915) - located at Douglas County Courthouse, Ava MO; field inspection by Clayton Fraser, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

9 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Dean Ford Bridge  
MHTD: 283001.4

DOUG04

**DATE(S) OF CONSTRUCTION**

1914-15

**LOCATION**

County Road 283 over North Fork of White River; S18, T25N,R11W  
10.7 miles southeast of Vanzant; Douglas County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

fair

**OWNER**

Douglas County

span number: 2  
span length: 96.0'  
total length: 193.0'  
roadway wdt.: 12.0'

superstructure: steel, 6-panel, pin-connected Pratt through truss  
substructure: concrete abutments, wingwalls and pier  
floor/decking: concrete deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; counter: round rod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 2 latticed angles; floor beam: I-beam, field bolted to vertical; guardrail: 2 channels; bridge plate: 1914 / STEEL FURNISHED BY KANSAS CITY BRIDGE Co. / JAS. THOMPSON PRES. JUDGE / JASON A. NASH ASSOC. JUDGE / JNO. B. DEEDS ASSOC. JUDGE / E.C. BUNCH COUNTY CLERK / W.S. DUNN COUNTY SURVEYOR / J.H. MURRAY CONTRACTOR AND BUILDER

Soon after completing construction of the Rome Bridge (DOUG03), local contractor J.H. Murray was asked to accompany Douglas County Surveyor W.S. Dunn to locate a suitable bridge site over the North Fork of the White River at the eastern part of the county. In May 1914 the men located two possible sites for the bridge - at the Dean Ford southeast of Vanzant and farther north at Topaz, surveying both for a bridge and the road that would lead to it. For the crossings, Dunn designed a two-span, Class B pinned Pratt truss, supported by a concrete substructure. In August the county advertised for bids for the construction of a bridge over the North Fork at either of the two crossings. Bids for the North Fork bridges were opened on September 8, 1914. Proposals were received from the Blodgett Construction Company, the Midland Bridge Company and the Kansas City Bridge Company, all from Kansas City, and from J.H. Murray himself. Murray was hired to build the bridge at Dean Ford for \$5700.00. As he had with the Rome Bridge, Murray again resigned his position with the county to undertake the construction of this bridge. Using two 96-foot trusses fabricated by the Kansas City Bridge Company, Murray completed the Dean Ford Bridge early the following year, whereupon he returned to his county post. The bridge has functioned in place since its completion, without major alteration.

One of the Midwest's most prolific bridge fabricators, the Kansas City Bridge Company maintained an extensive catalogue of truss types, ranging from the exotic to the commonplace. KCBrc, like most of the region's bridge builders of the time, relied heavily on pin-connected Pratt truss variants for its standard truss types. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design was charac-

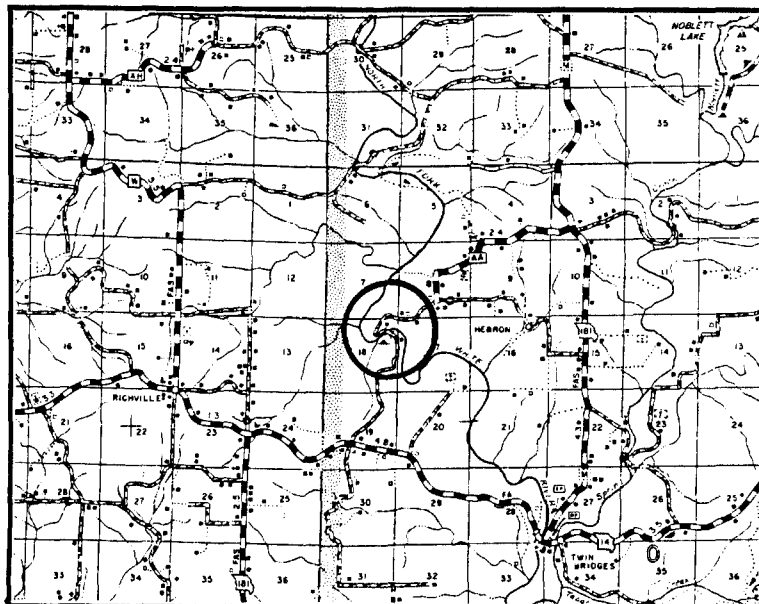


terized by upper chords and vertical members acting in compression and lower chords and diagonals that acted in tension. Its parallel chords and equal panel lengths resulted in standardized sizes for the verticals, diagonals and chord members, making fabrication and assembly relatively easy. In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy of metal, and suitability for connecting to the floor and lateral systems." Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. The Dean Ford Bridge is distinguished somewhat by its two-span configuration, but, with its 1913 fabrication date and 100 foot span length, it is structurally unremarkable among Missouri's trusses.

---

**NAME(S) OF STRUCTURE**

Dean Ford Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 283001.4; Douglas County Court Minutes, Book 3: page 185 (9 May 1914), page 188 (20 June 1914), page 209 (12 August 1914), page 212 (8 September 1914), page 242 (15 December 1914), page 247 (12 January 1915), page 301 (10 May 1915), page 306 (8 June 1915) - located at Douglas County Courthouse, Ava MO; field inspection by Clayton Fraser, 26 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

9 March 1993

---

# GREENE COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*GREN01	H 123A	Sac River Bridge	<b>3-100'</b> concrete open spandrel arch 1926 A.P. Poirot
*GREN02	H 636	Pomme de Terre R. Bridge	<b>3-100'</b> concrete open spandrel arch 1928 M.E. Gillioz
GREN03	K 818	Little Sac River Bridge	<b>1-110'</b> steel plate deck girder 1939 Otto W. Knutson
GREN04	X 710	James River Bridge	<b>4-100'</b> steel stringer 1947 F.D. Coate Construction Company
GREN05	U4075021	Olive Street Bridge	<b>1- 20'</b> concrete filled spandrel arch 1924
GREN06	U4075029	Zoo Park Bridge	<b>1- 20'</b> concrete filled spandrel arch 1913 Canton Bridge Company
*GREN07	U4075046	Benton Avenue Viaduct	<b>26-53'</b> concrete deck girder 1927 M.E. Gillioz, Monett MO
*GREN08	U4075047	Grant Avenue Viaduct	<b>30-56'</b> concrete deck girder 1927 List & Weatherly Const. Co.
GREN09	017011.9	Sycamore Bridge	<b>4- 35'</b> concrete deck girder 1916 Matthews and Sturdevant
GREN10	018006.4	Bridge	<b>2- 17'</b> concrete slab 1914 Canton Bridge Company
GREN11	020024.5	Pomme de Terre R. Bridge	<b>1- 60'</b> pinned Pratt half-hip pony truss 1906 Canton Bridge Company
GREN12	021004.0	Bridge	<b>2- 14'</b> concrete slab 1916 J.S. McMillan
*GREN13	033004.3	Baker/Hawkins Bridge	(replaced)
GREN14	035011.1	John's Mill Bridge	(replaced)
*GREN15	043004.8	Killingsworth Bridge	(replaced)
*GREN16	044012.3	Johnson Ford Bridge	(replaced)
*GREN17	052008.8	Cave Springs Bridge	(replaced)
GREN18	052009.4	Cave Springs Bridge	<b>1- 36'</b> concrete through girder 1915 Canton Bridge Company
*GREN19	054012.7	Hackney Mill Bridge	<b>1-100'</b> pinned Pratt through truss 1896 Wrought Iron Bridge Company
GREN20	065015.5	Sac River Bridge	<b>1- 32'</b> concrete through girder 1915 Canton Bridge Company
GREN21	065015.9	Yeakley Bridge	<b>1- 24'</b> concrete slab 1913 Canton Bridge Company
GREN22	068001.3	Ash Grove Overpass	<b>1- 36'</b> steel plate deck girder 1915 Canton Bridge Company
*GREN23	084000.7	Spring Branch Bridge	(replaced)
GREN24	088009.9	Bigbee Ford Bridge	(replaced)
GREN25	115020.5	Wilson Creek Bridge	<b>1- 60'</b> pinned Pratt pony truss c1905 Canton Bridge Company (prob.)

# GREENE COUNTY

## INCLUDED (cont.):

GREN26	119019.2	Roundtree Ford Bridge	1- 48'	pinned Pratt half-hip pony truss
			1901	American Bridge Company
*GREN27	128003.9	Sac River Bridge	1- 45'	<b>concrete filled spandrel arch</b>
			1918	Pioneer Construction Company
GREN28	144022.5	Pearson Creek Bridge	1- 45'	pinned Pratt half-hip pony truss
			c1905	
GREN29	148024.4	James River Bridge	1-150'	<b>riveted Parker through truss</b>
			1926	M.E. Gillioz (poss.)
GREN30	151009.8	Dry Sac River Bridge		(replaced)
*GREN31	156013.3	Wilson Creek Bridge		(replaced)
GREN32	407522.0	River Road Bridge	1-160'	<b>riveted Parker through truss</b>
			1923	M.E. Gillioz

## EXCLUDED:

Warren pony truss  
174012.8 128003.3

### Steel stringer

J 930R1	K 162	K 646	K 818	S 347	S 348	T 493
171010.6	141022.0	144004.4	148024.6	148023.0		

### Steel girder

215004.8 0250149.1 156004.7

### Concrete slab

H 493R	Y 682	U4075038	U4075041	U4075042	004008.1	099003.0
117005.1	117005.0	094010.1	052000.3	033004.6	074001.0	137001.4
137001.1	149002.7	167003.7	181005.4	068020.1	034024.7	048025.4
221027.8	231000.1	225010.1	044004.2	207004.8	223007.1	062030.6
134027.8	219016.7	132023.6	175022.7	169022.5	186009.6	186009.8
116003.8	116003.5	116003.1	045013.2	045015.5	144005.6	160006.4
043022.4	190022.8	407501.1	407502.0	407503.5	407503.9	407520.1
407522.8	407523.0					

### Concrete girder

G 521	H 462	H 945R	K 281	K 901	K 949	U4075004
X 143	X 144	U4075044	U4075049	004008.3	076007.0	129009.3
167001.5	076018.0	102016.4	102017.9	087018.2	141015.1	141015.5
206024.8	407522.1	407522.9				

### Concrete box culvert

H 461	H 468	H 494R	H 737	J 227	J 692R	K 420
K 747	L 281R1	L 338	L 369	L 370	S 346	S 362
S 363	S 417	T 273	T 371	T 492	T 494	T 992
W 10	X 560	X 581	Y 757	U4075017	U4075018	U4075019



## GREENE COUNTY

---

### EXCLUDED (cont.):

Concrete box culvert

U4075022	U4075031	004007.6	022009.6	002010.9	076006.8	060015.0
149002.9	177000.4	177000.3	173002.5	066021.2	094021.9	159007.4
102019.7	102020.7	189011.1	197011.2	213012.4	138027.4	150025.4
144022.1	227019.5	170025.6	170025.4	170024.9	182016.2	097012.1
097012.4	101013.5	124010.4	160008.7	150024.0	407504.5	407520.2
407520.5	407520.6	407520.8	407521.3	407521.4	407521.5	407521.6
407521.7	407522.2	407522.7	407523.1	407523.2		

### SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	5	17	5	0	27
Excluded	41	109	15	0	165
<hr/>					
	46	126	20	0	192 structures

# Sac River Bridge

GREN01

## GENERAL DATA

structure no.:	H 123A	city/town:	1.0 mile northwest of Ash Grove
county:	Greene	feature inters.:	Sac River
		cadastral grid:	S18, T30N, R24W
		highway route:	U.S. Highway 160
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, open spandrel arch; five concrete deck girder approach spans  
substructure: concrete abutments, wingwalls and piers

span number:	3	condition:	good
span length:	100.0'	alterations:	none
total length:	310.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	MSHD standard-design concrete guardrails; fluted pylons at piers and abutments; bridge plate: Missouri Highway Dept. Bridge 123 1926; Erected A.D. 1926 Contractor A.P. Poirot Belleville, Ill.

## HISTORICAL DATA

erection date: 1926  
erection cost: \$31,445.41  
designer: Missouri State Highway Department  
fabricator : none  
contractor: A.P. Poirot

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 123A; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City, MO; field inspection by Clayton Fraser, 23 January 1990.

sign. rating: 50  
evaluation: NRHP possibly eligible (well-preserved, multiple-span example of MSHD open spandrel concrete arch construction)

Inventoried by: Clayton B. Fraser 8 April 1993

# Pomme de Terre River Bridge

GREN02

## GENERAL DATA

structure no.:	H 636	city/town:	2.4 miles north of Fairgrove
county:	Greene	feature inters.:	Pomme de Terre River
		cadastral grid:	S17, T31N, R20W
		highway route:	U.S. Highway 65
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete open spandrel arch; 5 concrete deck girder approach spans		
substructure:	concrete abutments and wingwalls; concrete spill-through piers		
span number:	1;1;1	condition:	fair
span length:	122';100';77'	alterations:	bridge closed, 1979
total length:	522.0'	floor/decking :	asphalt on concrete deck
roadway width:	20.0'	other features:	MSHD standard-design concrete guardrails with square balusters); fluted pylons at main piers

## HISTORICAL DATA

erection date:	1928-29
erection cost:	\$50,376.46
designer:	Missouri State Highway Department
fabricator :	none
contractor:	M.E. Gillioz, Monett MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 636; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; <b>Sixth Biennial Report of the State Highway Commission of Missouri</b> , 1927-28, page 172; field inspection by Clayton Fraser, 23 January 1990.
sign. rating:	50
evaluation:	NRHP possibly eligible (well-preserved, multiple-span example of MSHD open spandrel concrete arch construction)

Inventoried by: Clayton B. Fraser    8 April 1993

# Little Sac River Bridge

---

GRENO3

## GENERAL DATA

structure no.:	K 818	city/town:	6.8 miles north of Willard
county:	Greene	feature inters.:	Little Sac River
		cadastral grid:	S24, T31N, R23W
		highway route:	State Supplementary Route BB
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel plate deck girder; 4 steel stringer approach spans		
substructure:	concrete abutments and wingwalls; concrete hammerhead, spill-through piers		
span number:	1	condition:	good
span length:	110.0'	alterations:	none
total length:	299.0'	floor/decking :	concrete deck
roadway width:	24.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1939
erection cost:	\$29,290.50
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	Otto W. Knutson
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 818.
sign. rating:	43
evaluation:	NRHP non-eligible (long-span, relatively late example of MSHD beam bridge construction)

Inventoried by: Clayton B. Fraser    8 April 1993

# James River Bridge

---

GRENO4

## GENERAL DATA

structure no.:	X 710	city/town:	5.2 miles south of Strafford
county:	Greene	feature inters.:	James River
		cadastral grid:	S21, T29N, R20W
		highway route:	State Highway 125
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	continuous steel stringer		
substructure:	concrete abutments, wingwalls and piers		
span number:	2; 2	condition:	good
span length:	100.0'; 80.0'	alterations:	none
total length:	364.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1947
erection cost:	\$61,259.60
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	F.D. Choate Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 710; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	43
evaluation:	NRHP non-eligible (noteworthy for its multiple long spans, but otherwise an undistinguished, late example of an exceedingly common structural type)

Inventoried by: Clayton B. Fraser    8 April 1993

# Olive Street Bridge

---

GREN05

## GENERAL DATA

structure no.:	U4075021	city/town:	Springfield
county:	Greene	feature inters.:	Jordan Creek
		cadastral grid:	S19, T29N, R21W
		highway route:	Olive Street
		highway distr.:	8
		current owner:	City of Springfield

## STRUCTURAL DATA

superstructure: concrete filled spandrel arch  
substructure: concrete abutments

span number:	1	condition:	fair
span length:	20.0'	alterations:	unknown
total length:	22.0'	floor/decking :	concrete
roadway width:	34.0'	other features:	concrete guardrails (standard Missouri State Highway Department design)

## HISTORICAL DATA

erection date: 1924  
erection cost: unknown  
designer: unknown  
fabricator : none  
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4075021.

sign. rating: 25  
evaluation: NRHP non-eligible (technologically undistinguished, short-span concrete bridge)

inventoried by: Clayton B. Fraser    8 April 1993

# Zoo Park Bridge

---

GRENO6

## GENERAL DATA

structure no.:	U4075029	city/town:	Springfield
county:	Greene	feature inters.:	Pea Ridge Creek
		cadastral grid:	S7, T29N, R21W
		highway route:	Norton Street
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	20.0'	alterations:	roadway widened and guardrails replaced
total length:	22.0'	floor/decking :	concrete deck over earth fill
roadway width:	26.7'	other features:	concrete guardrails (standard Missouri State Highway Department design)

## HISTORICAL DATA

erection date:	1913
erection cost:	\$324.00
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4075029; Greene County Court Record, Book 40: pages 115-120 (8 August 1913), page 367 (23 December 1923) - located at Greene County Archives, Springfield MO.
sign. rating:	35
evaluation:	NRHP non-eligible (substantially altered, small-scale example of early concrete bridge type)

Inventoried by: Clayton B. Fraser    8 April 1993

# Benton Avenue Viaduct

GREN07

## GENERAL DATA

structure no.:	U4075046	city/town:	Springfield
county:	Greene	feature inters.:	Jordan Creek; SL&SF Railroad
		cadastral grid:	S19, T29N, R21W
		highway route:	Benton Avenue
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete deck girder		
substructure:	concrete abutments, wingwalls and piers		
span number:	26	condition:	fair
span length:	53.0'	alterations:	roadway widened and guardrails replaced
total length:	980.0'	floor/decking :	concrete deck
roadway width:	50.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: Built 1927 M.E. Gillioz, Contractor / St. Louis - San Francisco Ry. F.G. Jonah, Chief Engineer Ralph Miller, Bridge Engineer / Missouri Pacific Railroad F.A. Hadley, Chief Engineer E.E. Bates, Bridge Engineer

## HISTORICAL DATA

erection date:	1927
erection cost:	unknown
designer:	Ralph Miller, St. Louis & San Francisco Railroad; E.E. Bates, Missouri Pacific Railroad
fabricator :	none
contractor:	M.E. Gillioz, Monett MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4075046; field inspection by Clayton Fraser, 23 January 1990.
sign. rating:	42
evaluation:	NRHP non-eligible (notable for its multiple spans, but otherwise a typically configured example of a common concrete structural type, substantially altered)

inventoried by: Clayton B. Fraser    8 April 1993



# Grant Avenue Viaduct

---

GREN08

## GENERAL DATA

structure no.:	U4075047	city/town:	Springfield
county:	Greene	feature inters.:	Jordan Creek; MoPac Railroad
		cadastral grid:	S24/19, T28N, R21/22W
		highway route:	Grant Avenue
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete deck girder	condition:	fair
substructure:	concrete abutments, wingwalls and piers	alterations:	roadway widened and guardrails replaced, 1979
span number:	30	floor/decking :	concrete deck
span length:	56.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: Built 1927 W.E. / Freeman, Mayor (list of commissioners) / Russell & Axon, Engineers List & Weatherly Construction Company / Reconstructed in 1979
total length:	1209.0'		
roadway width:	50.0'		

## HISTORICAL DATA

erection date:	1927
erection cost:	unknown
designer:	Russell and Axon, Engineers
fabricator :	none
contractor:	List and Weatherly Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number U4075047; field inspection by Clayton Fraser, 23 January 1990.
sign. rating:	42
evaluation:	NRHP non-eligible (notable for its multiple spans, but otherwise a typically configured example of a common concrete structural type, substantially altered)

inventoried by: Clayton B. Fraser    8 April 1993

# Sycamore Bridge

---

GREN09

## GENERAL DATA

structure no.:	017011.9	city/town:	4.2 miles south of Ash Grove
county:	Greene	feature inters.:	Sac River
		cadastral grid:	S6, T29N, R24W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete deck girder		
substructure:	concrete abutments, wingwalls and piers		
span number:	4	condition:	fair
span length:	35.0'	alterations:	none
total length:	140.0'	floor/decking :	concrete
roadway width:	15.1'	other features:	concrete guardrails with incised panels

## HISTORICAL DATA

erection date:	1916-17
erection cost:	\$7950.00 (two-bridge contract)
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	Matthews and Sturdevant
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2758.
sign. rating:	55
evaluation:	NRHP possibly eligible (well-preserved, relatively early example of pre-MSHD concrete bridge construction)

inventoried by: Clayton B. Fraser    8 April 1993

# Bridge

---

GREN10

## GENERAL DATA

structure no.:	018006.4	city/town:	2.0 miles east of Walnut Grove
county:	Greene	feature inters.:	branch of Asher Creek
		cadastral grid:	S19, T31N, R23W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete slab		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	fair
span length:	17.0'	alterations:	none
total length:	35.0'	floor/decking :	concrete deck
roadway width:	15.7'	other features:	concrete guardrails with recessed rectangular panels

## HISTORICAL DATA

erection date:	1914
erection cost:	unknown
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 439; Greene County Court Record, Book 41 pages 115-16 (14 July 1914) - located at Greene County Courthouse, Springfield MO.
sign. rating:	46
evaluation:	NRHP possibly eligible (early, small-scale example of concrete bridge construction)

inventoried by: Clayton B. Fraser    8 April 1993

# Little Pomme de Terre River Bridge

GREN11

## GENERAL DATA

structure no.:	020024.5	city/town:	2.0 miles northwest of Fairgrove
county:	Greene	feature inters.:	Little Pomme de Terre River
		cadastral grid:	S24, T31N, R21W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss  
substructure: stone masonry abutments and wingwalls

span number:	1	condition:	fair
span length:	60.0'	alterations:	none
total length:	62.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.0'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped square eyebars; vertical: 4 angles with double lacing; diagonal: looped square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice; cast iron bearing shoes; builder's plate (remnant): ...IDGE...ANTON OH

## HISTORICAL DATA

erection date: 1906  
erection cost: \$7064.25 (3-bridge contract)  
designer: Canton Bridge Company, Canton OH  
fabricator : Canton Bridge Company, Canton OH;  
Carnegie Steel Company, Pittsburgh PA  
contractor: Canton Bridge Company, Canton OH  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 1417; Greene County Court Record, Book 29: page 20 (2 November 1904); Greene County Court Record, Book 30: page 291 (14 November 1905), page 616 (22 May 1906) - located at Greene County Courthouse, Springfield MO; field inspection by Clayton Fraser, 23 January 1990.  
sign. rating: 46  
evaluation: NRHP non-eligible (typically configured example of mainstay structural type)

inventoried by: Clayton B. Fraser 8 April 1993

# Bridge

---

GREN12

## GENERAL DATA

structure no.:	021004.0	city/town:	3.8 miles north of Ash Grove
county:	Greene	feature inters.:	branch of Clear Creek
		cadastral grid:	S32, T31N, R24W
		highway route:	Farm Road 21
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete slab	condition:	fair
substructure:	concrete abutments and pier	alterations:	unknown
span number:	2	floor/decking :	concrete deck
span length:	14.0'	other features:	bridge plate: Judges W.A. McGuire / W.R. Gorsuch / John Cowell / built by W.W. Simmons Aug 1916
total length:	28.0'		
roadway width:	20.3'		

## HISTORICAL DATA

erection date:	1916
erection cost:	unknown
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	W.W. Simmons
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 552.
sign. rating:	39
evaluation:	NRHP non-eligible (small-scale, relatively early example of concrete bridge construction)

Inventoried by: Clayton B. Fraser    8 April 1993

# Cave Springs Bridge

---

GREN18

## GENERAL DATA

structure no.:	052009.4	city/town:	3.6 miles northwest of Willard
county:	Greene	feature inters.:	branch of Asher Creek
		cadastral grid:	S10, T30N, R23W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete through girder		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	36.0'	alterations:	none
total length:	36.0'	floor/decking :	concrete deck
roadway width:	15.6'	other features:	concrete guardrails with recessed rectangular panels

## HISTORICAL DATA

erection date:	1915
erection cost:	\$1300.00
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 216; Greene County Court Record, Book 42, page 28 (12 April 1915) - located at Greene County Court-house, Springfield MO.
sign. rating:	56
evaluation:	NRHP possibly eligible (well-preserved, early example of concrete bridge construction)

Inventoried by: Clayton B. Fraser    8 April 1993

# Hackney Mill Bridge

GREN19

## GENERAL DATA

structure no.:	054012.7	city/town:	3.3 miles northeast of Willard
county:	Greene	feature inters.:	Little Sac River
		cadastral grid:	S7, T30N, R22W
		highway route:	Farm Road 54
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	wrought iron or steel, 6-panel, pin-connected Pratt through truss; steel, 5-panel, pin-connected Pratt pony truss approach span, and 1 steel stringer approach span on the south end		
substructure:	stone masonry abutments; concrete-filled iron cylinder piers		
span number:	1	condition:	fair
span length:	100.0'	alterations:	none
total length:	142.0'	floor/decking :	timber deck over steel stringers
roadway width:	12.5'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (1 looped square eyerod at the hip); diagonal: 2 looped rectangular eye-bars; counter: square eyebar with turnbuckle; upper lateral bracing: round eyerod with turnbuckle; lower lateral bracing: round rod with threaded ends; strut: I-beam; floor beam: I-beam, U-bolted to vertical; guardrail: 2 channels; portal builder's plate: 1895 / Wrought Iron Bridge Co / Builders / Canton, Ohio

## HISTORICAL DATA

erection date:	1895-96
erection cost:	\$3350.00
designer:	Wrought Iron Bridge Company, Canton OH
fabricator :	Wrought Iron Bridge Company, Canton OH; Carnegie Rolling Mills, Pittsburgh PA
contractor:	Wrought Iron Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 333; Greene County Court Record, Book S: pages 415-416 (25 November 1895), page 579 (4 February 1896), page 580 (4 February 1896), page 584 (5 February 1896); Greene County Court Record, Book T: page 96 (15 May 1896) - located at Greene County Courthouse, Springfield MO; "Hackney Bridge Proposal Draws Fire," <b>Springfield Leader &amp; Press</b> , 20 August 1985; oral interview with Russell Mahan, conducted by Clayton Fraser, 23 January 1990; field inspection by Clayton Fraser, 23 January 1990.

## Hackney Mill Bridge

---

sign. rating: 52

evaluation: NRHP determined non-eligible (early, well-documented example of this mainstay structural type, which has retained a high degree of structural integrity)

inventoried by: Clayton B. Fraser 8 April 1993



# Sac River Bridge

---

GREN20

## GENERAL DATA

structure no.:	065015.5	city/town:	3.2 miles south of Bois d'Arc
county:	Greene	feature inters.:	Sac River
		cadastral grid:	S24, T29N, R23W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete through girder		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	32.0'	alterations:	unknown
total length:	33.0'	floor/decking :	concrete deck
roadway width:	15.0'	other features:	concrete guardrails with recessed rectangular panels

## HISTORICAL DATA

erection date:	1915
erection cost:	\$1300.00 (three-bridge contract)
designer:	Greene County Road and Bridge Commissioner
fabricator :	none
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2852; Greene County Court Record, Book 42, page 28 (12 April 1915) - located at Greene County Court-house, Springfield MO.
sign. rating:	56
evaluation:	NRHP possibly eligible (well-preserved, early example of concrete bridge construction)

Inventoried by: Clayton B. Fraser    8 April 1993

# Yeakley Bridge

---

GREN21

## GENERAL DATA

structure no.:	065015.9	city/town:	5.8 miles northwest of Republic
county:	Greene	feature inters.:	Pond Creek
		cadastral grid:	S25, T29N, R23W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure: concrete slab  
substructure: unknown

span number:	1	condition:	fair
span length:	24.0'	alterations:	none
total length:	25.0'	floor/decking :	unknown
roadway width:	14.5'	other features:	unknown

## HISTORICAL DATA

erection date: 1913  
erection cost: \$287.00 (contract cost)  
designer: Greene County Road and Bridge Commissioner  
fabricator : none  
contractor: Canton Bridge Company, Canton OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2853; Greene County Court Record, Book 40, pages 222-23 (16 October 1913) - located at Greene County Courthouse, Springfield MO.

sign. rating: 32  
evaluation: NRHP non-eligible (technologically undistinguished example of early concrete bridge type)

Inventoried by: Clayton B. Fraser    8 April 1993

# Ash Grove Overpass

---

GREN22

## GENERAL DATA

structure no.:	068001.3	city/town:	1.2 miles northwest of Ash Grove
county:	Greene	feature inters.:	Saint Louis and San Francisco Railroad
		cadastral grid:	S20, T30N, R24W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	steel plate deck girder		
substructure:	concrete abutments		
span number:	1	condition:	fair
span length:	36.0'	alterations:	unknown
total length:	36.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	steel pipe guardrails

## HISTORICAL DATA

erection date:	1915
erection cost:	\$979.50
designer:	Canton Bridge Company, Canton OH
fabricator :	none
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 798; Greene County Court Record, Book 42 page 191 (21 June 1915) - located at Greene County Court-house, Springfield MO.
sign. rating:	45
evaluation:	NRHP non-eligible (undistinguished small-scale structure, lacking in technological significance)

Inventoried by: Clayton B. Fraser    8 April 1993

# Wilson Creek Bridge

GREN25

## GENERAL DATA

structure no.:	115020.5	city/town:	1.5 miles northwest of Battlefield
county:	Greene	feature inters.:	Wilson Creek
		cadastral grid:	S18, T28N, R22W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss  
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	60.0'	alterations:	none
total length:	61.0'	floor/decking :	asphalt on concrete, over steel stringers
roadway width:	13.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice with curved ends

## HISTORICAL DATA

erection date: c1905  
erection cost: unknown  
designer: Canton Bridge Company, Canton OH  
fabricator : Canton Bridge Company, Canton OH;  
Jones and Laughlin Steel Company, Pittsburgh PA;  
Cambria Steel Company, Pittsburgh PA  
contractor: Canton Bridge Company, Canton OH  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2594; field inspection by Clayton Fraser, 23 January 1990.  
sign. rating: 39  
evaluation: NRHP non-eligible (slightly longer than average, largely undocumented example of a mainstay structural type)

Inventoried by: Clayton B. Fraser 8 April 1993

# Roundtree Ford Bridge

---

GREN26

## GENERAL DATA

structure no.:	119019.2	city/town:	2.3 miles north of Battlefield
county:	Greene	feature inters.:	Wilson Creek
		cadastral grid:	S7, T28N, R22W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	steel, 3-panel, pin-connected Pratt half-hip pony truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	48.0'	alterations:	none
total length:	48.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.2'	other features:	steel lattice guardrails

## HISTORICAL DATA

erection date:	1901
erection cost:	unknown
designer:	American Bridge Company, New York NY
fabricator :	American Bridge Company, New York NY
contractor:	American Bridge Company, New York NY
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2422; Greene County Court Record, Book Z: pages 277-78 (5 February 1902), pages 32-33 (20 October 1902) - located at the Greene County Courthouse, Springfield MO.
sign. rating:	41
evaluation:	NRHP non-eligible (partially documented, typically configured example of pinned pony truss construction)

inventoried by: Clayton B. Fraser    8 April 1993

# Sac River Bridge

---

GREN27

## GENERAL DATA

structure no.:	128003.9	city/town:	7.1 miles southeast of Ash Grove
county:	Greene	feature inters.:	Sac River
		cadastral grid:	S15, T29N, R24W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	45.0'	alterations:	none
total length:	47.0'	floor/decking :	concrete deck over earth fill
roadway width:	16.2'	other features:	concrete guardrails with recessed rectangular panels

## HISTORICAL DATA

erection date:	1918
erection cost:	unknown
designer:	Fred Johnson, Greene County Highway Engineer
fabricator :	none
contractor:	Pioneer Construction Company, Kansas City MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 2809; Greene County Court Record, Book 45: pages 591-593 (28 May 1918), page 613 (10 June 1918); Greene County Court Record, Book 46: page 61 (31 July 1918), page 180 (17 October 1918) - located at the Greene County Courthouse, Springfield MO.
sign. rating:	49
evaluation:	NRHP possibly eligible (well-preserved, well-documented early example of pre-MSHD concrete bridge construction)

inventoried by: Clayton B. Fraser    8 April 1993

# Pearson Creek Bridge

---

GREN28

## GENERAL DATA

structure no.:	144022.5	city/town:	5.3 miles east of Springfield
county:	Greene	feature inters.:	Pearson Creek
		cadastral grid:	S26, T29N, R21W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	steel, 3-panel, pin-connected Pratt half-hip pony truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	45.0'	alterations:	unknown
total length:	46.0'	floor/decking :	timber deck over steel stringers
roadway width:	12.8'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date:	c1905
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 1979.

sign. rating: 26

evaluation: NRHP non-eligible (typically configured, inadequately documented example of a common structural type)

Inventoried by: Clayton B. Fraser    8 April 1993

# James River Bridge

---

GREN29

## GENERAL DATA

structure no.:	148024.4	city/town:	7.7 miles east of Springfield
county:	Greene	feature inters.:	James River
		cadastral grid:	S31, T29N, R20W
		highway route:	county road
		highway distr.:	8
		current owner:	Greene County

## STRUCTURAL DATA

superstructure:	steel, 9-panel, rigid-connected Parker through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	1	condition:	fair
span length:	150.0'	alterations:	unknown
total length:	348.0'	floor/decking :	concrete deck over steel stringers
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1926
erection cost:	unknown
designer:	Missouri State Highway Department (probable)
fabricator :	unknown
contractor:	M.E. Gillioz, Monett MO (possible)
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 3044; <b>Fifth Biennial Report of the State Highway Commission of Missouri</b> , 1925-26, pages 178-79.
sign. rating:	44
evaluation:	NRHP non-eligible (typically configured example of riveted Parker through truss design, partially documented)

inventoried by: Clayton B. Fraser    8 April 1993



# River Road Bridge

---

GREN32

## GENERAL DATA

structure no.:	407522.0	city/town:	Springfield
county:	Greene	feature inters.:	James River
		cadastral grid:	S16, T28N, R21W
		highway route:	River Road
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Parker through truss; two Warren pony truss approach spans

substructure: concrete abutments, wingwalls and piers

span number:	1; 2	condition:	good
span length:	160.0'; 60.0'	alterations:	unknown
total length:	287.0'	floor/decking :	concrete deck over steel stringers
roadway width:	19.8'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date: 1922-23

erection cost: \$27,015.40

designer: Missouri State Highway Department

fabricator : unknown

contractor: M.E. Gillioz, Monett MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 407522.0; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Board, **Third Biennial Report**: 1921-1922, page 127-28, 138; Missouri State Highway Board, **Fourth Biennial Report**: 1923-1924, page 149.

sign. rating: 57

evaluation: NRHP possibly eligible (one of earliest remaining examples in state of MSHD standard long-span structural type)

Inventoried by: Clayton B. Fraser    8 April 1993

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sac River Bridge  
MHTD: H 123A

GREN01

**DATE(S) OF CONSTRUCTION**

1926

**LOCATION**

U.S. Highway 160 over Sac River; S18, T30N, R24W  
1.0 mile northwest of Ash Grove; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3

span length: 100.0'

total length: 310.0'

roadway wdt.: 20.0'

superstructure: concrete, open spandrel arch; five concrete deck girder approach spans

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck

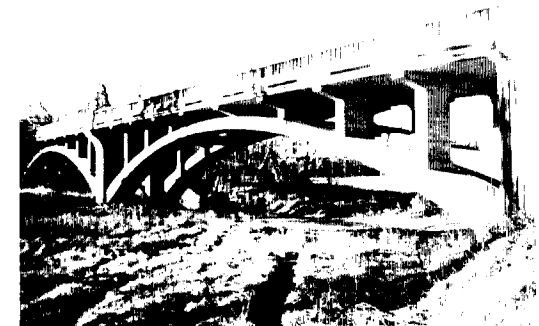
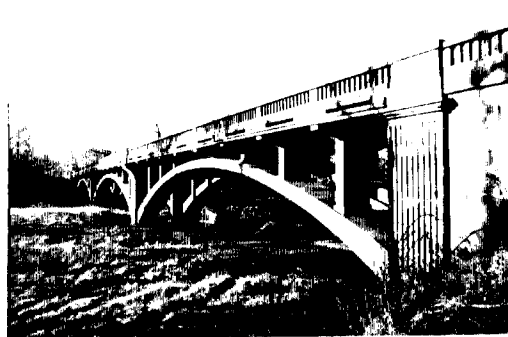
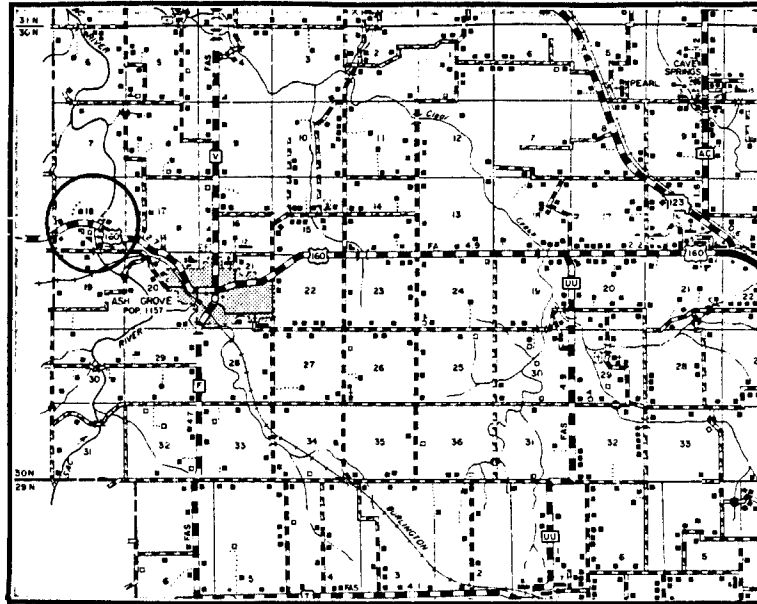
other features: MSHD standard-design concrete guardrails; fluted pylons at piers and abutments; bridge plate: Missouri Highway Dept. Bridge 123 1926; Erected A.D. 1926 Contractor A.P. Poirot Belleville, Ill.

This multiple-span concrete bridge spans the Sac River a mile northwest of Ash Grove. A part of U.S. Highway 160, the bridge consists of a three open spandrel concrete arches, with a series of concrete deck girder approach spans. The architectural detailing is typical for such concrete structures of the period designed by the state highway department, with concrete baluster guardrails and fluted concrete pylons at the arch corners. The Sac River Bridge was designed late in 1925 by the Bridge Department of the state highway commission. Its construction was contracted in February 1926 to A.P. Poirot. Costing \$31,445.41, the structure was completed later that year. In unaltered condition, it continues to carry traffic at this rural Greene County crossing.

The Missouri State Highway Department adopted the open spandrel concrete arch as a standard design for medium- and long-span crossings in the mid-1920s. During the 1920s and 1930s, the department built dozens of such arches throughout the state, concentrating them for some reason in the Ozarks region in southwestern Missouri. The Sac River Bridge in Greene County is distinguished among the remaining open spandrel arches in the state for its noteworthy degree of physical integrity and for its three spans. It is a noteworthy highway-related resource.

**NAME(S) OF STRUCTURE**

Sac River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 123A; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City, MO; field inspection by Clayton Fraser, 23 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Pomme de Terre River Bridge  
MHTD: H 636

GREN02

**DATE(S) OF CONSTRUCTION**

1928-29

**LOCATION**

U.S. Highway 65 over Pomme de Terre River; S17, T31N, R20W  
2.4 miles north of Fairgrove; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

fair

**OWNER**

Missouri Highway and Transportation Department

span number: 1;1;1	superstructure: concrete open spandrel arch; 5 concrete deck girder approach spans
span length: 122'; 100'; 77'	substructure: concrete abutments and wingwalls; concrete spill-through piers
total length: 522.0'	floor/decking: asphalt on concrete deck
roadway wdt.: 20.0'	other features: MSHD standard-design concrete guardrails with square balusters); fluted pylons at main piers

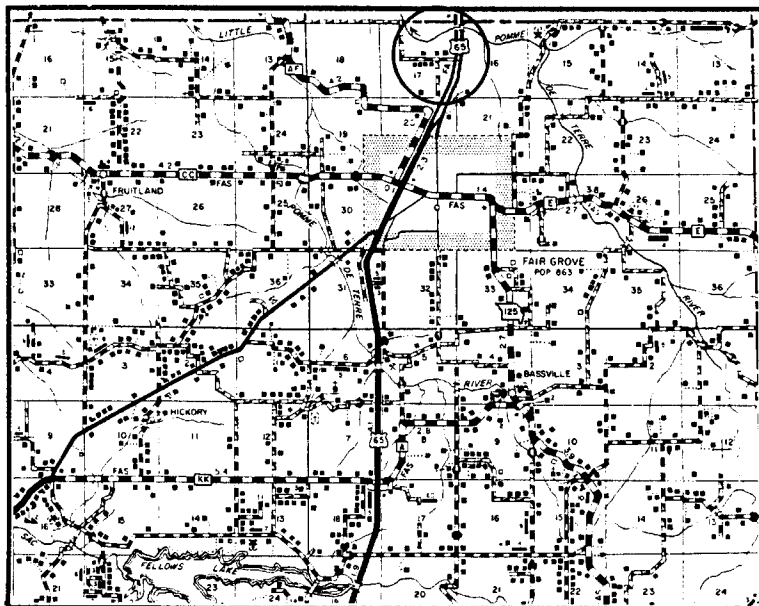
In the early-1920s, the Missouri State Highway Commission prepared long-span concrete arch designs for a number of the state's longest river crossings. Comprised of three open spandrel arches, flanked by five concrete deck girder approaches, this bridge in Greene County was erected where Highway 65 intersected the Pomme de Terre River, some 2½ miles north of Fairgrove. Drawings were prepared in early 1928, and that summer the project was ready to bid. On August 10, 1928, a contract for the bridge's construction was awarded to M.E. Gillioz. Based in Monett, Missouri, Gillioz was one of southern Missouri's most prolific builders during the 1920s and 1930s. He completed the multiple-span bridge later that year for a total cost of over \$50,000. Unchanged from its original construction, the Pomme de Terre River Bridge displays a high degree of historical integrity.

The state highway department in the 1920s and 1930s developed plans for a number of concrete bridges that were erected on the state's highways. For concrete bridges with span lengths under 80 feet, filled spandrel arches were most often executed, while for longer-span bridges, the highway department typically opted for open spandrel designs. Single-span examples of the latter configuration were fairly common, but multiple-span open spandrel arches were built far less often. Approximately 20 multiple-span, open spandrel arches have been identified by the statewide bridge inventory. The Pomme de Terre River Bridge is significant among these as a well-preserved example, with a notable 122-foot maximum span length.

---

**NAME(S) OF STRUCTURE**

Pomme de Terre River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 636; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 23 January 1990.

**INVENTORIED BY**

Clayton Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sycamore Bridge  
MHTD: 017011.9

GREN09

**DATE(S) OF CONSTRUCTION**

1916-17

**LOCATION**

county road over Sac River; S6, T29N, R24W  
4.2 miles south of Ash Grove; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 55)

**CONDITION**

fair

**OWNER**

Greene County

span number:	4	superstructure:	concrete deck girder
span length:	35.0'	substructure:	concrete abutments, wingwalls and piers
total length:	140.0'	floor/decking:	concrete
roadway wdt.:	15.1'	other features:	concrete guardrails with incised panels

Located about four miles south of Ash Grove in Boone Township, this small-scale concrete bridge carries a county road over a branch of the Dry Sac River. The bridge is comprised of three concrete deck girder spans, supported by concrete piers and abutments. Greene County began planning for construction of a bridge at this point in the summer of 1916. That October, after soliciting competitive proposals, the county court awarded a contract to build this and another, almost identical concrete bridge over the Dry Sac River [GREN12] to the partnership of A.H. Matthews and W.E. Sturdevant. The contractors began work on both bridges soon thereafter, completing them both sometime after the new year. The Sycamore Bridge, as this structure is known locally, has functioned in place since, in essentially unaltered condition.

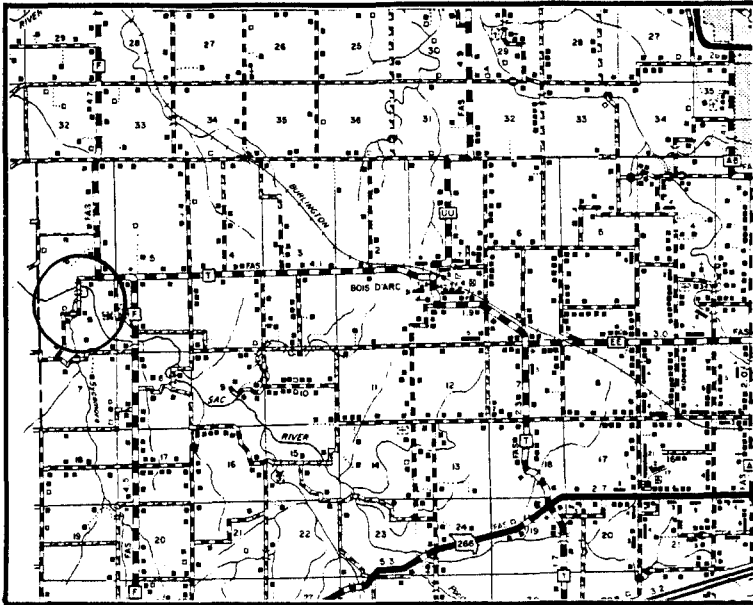
The state highway department provided the impetus for concrete construction in the 1920s, designing and building numerous short-span concrete slabs and deck girders as primary or approach spans on bridges. Although the concrete girder was a mainstay structural type in the 1920s, 1930s and 1940s—due entirely to MSHD—few concrete girder bridges in Missouri pre-date the highway department period, because the counties were slow to embrace reinforced concrete for construction of vehicular bridge superstructures in the 1910s. The Sycamore Bridge is distinguished as one of the few concrete girders remaining from this formative period: a well-preserved, relatively early example of pre-MSHD concrete bridge construction.

---

**NAME(S) OF STRUCTURE**

Sycamore Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 017011.9.

---

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bridge  
MHTD: 018006.4

GREN10

**DATE(S) OF CONSTRUCTION**

1914

**LOCATION**

county road over branch of Asher Creek; S19, T31N, R23W  
2.0 miles east of Walnut Grove; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 46)

**CONDITION**

fair

**OWNER**

Greene County

span number:	2	superstructure:	concrete slab
span length:	17.0'	substructure:	concrete abutments, wingwalls and piers
total length:	35.0'	floor/decking:	concrete deck
roadway wdt.:	15.7'	other features:	concrete guardrails with recessed rectangular panels

This small-scale concrete bridge carries a county road over a branch of Asher Creek northeast of Ash Grove. The structure features a concrete slab deck supported by concrete mass abutments and center pier. It is simply detailed, with recessed rectangular panels on the girder sides as the only architectural expression. The bridge is one of eleven small-scale concrete structures contracted for by the county in July 1914. The Canton Bridge Company of Ohio was hired to build the structures, which ranged in scale from single-barrel culverts to 62-foot concrete through girders. Canton completed the bridges later that year. Since that time, this bridge in Walnut Grove Township has carried rural traffic in essentially unaltered condition.

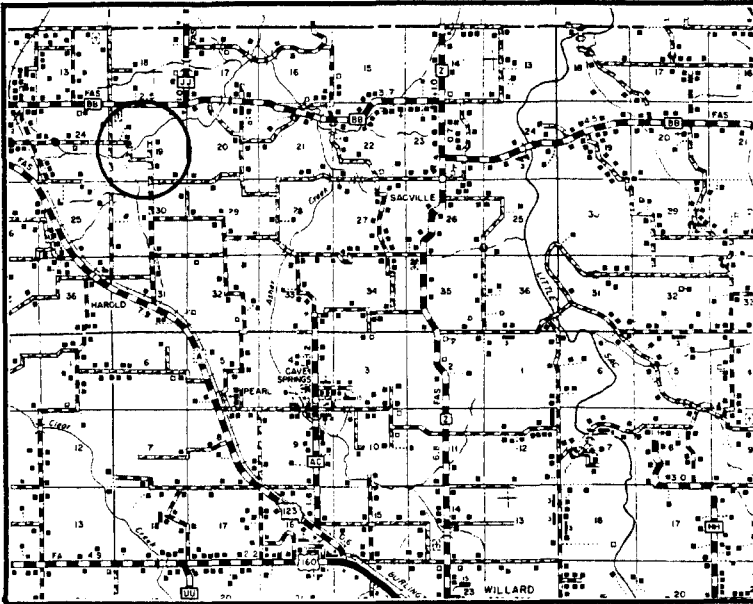
Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. This small-scale bridge in green County is distinguished among these as one of the earliest dateable examples in the state of concrete bridge construction.



**NAME(S) OF STRUCTURE**

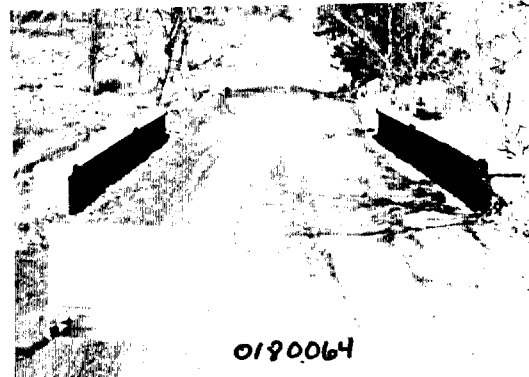
Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 018006.4; Greene County Court Record, Book 41 pages 115-16 (14 July 1914) - located at Greene County Courthouse, Springfield MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**  
Cave Springs Bridge  
MHTD: 052009.4

GREN18

**DATE(S) OF CONSTRUCTION**  
1915

**LOCATION**

county road over branch of Asher Creek; S10, T30N, R23W  
3.6 miles northwest of Willard; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 56)

**CONDITION**

fair

**OWNER**

Greene County

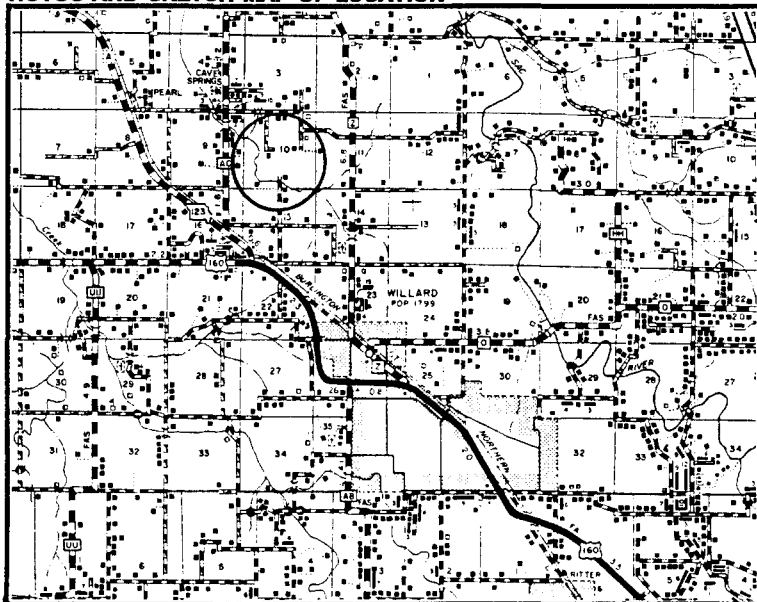
span number:	1	superstructure:	concrete through girder
span length:	36.0'	substructure:	concrete abutments and wingwalls
total length:	36.0'	floor/decking:	concrete deck
roadway wdt.:	15.6'	other features:	concrete guardrails with recessed rectangular panels

This single-span concrete bridge carries a county road over a branch of Asher Creek northwest of Willard. Known locally as the Cave Springs Bridge, the structure features a concrete deck supported between the concrete mass abutments by a pair of through girders. It is simply detailed, with recessed rectangular panels on the girder sides as the only architectural expression. The Cave Springs Bridge dates to 1915. In April of that year the Greene County Court received bids for three concrete structures: a 32-foot through girder span south of Bois d'Arc, an 8-foot concrete arch culvert west of Phoenix and this 36-foot through girder. The contract to build all three was awarded to the Canton Bridge Company of Ohio for \$1300.00. Canton completed the three small-scale bridges later that year. Since that time, the Cave Springs Bridge has functioned in place, without substantial alteration.

Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. The Cave Springs Bridge is distinguished among these as one of less than ten concrete through girders found in the state. Modestly scaled and simply detailed, it is noteworthy as an early, well-preserved example of concrete bridge construction in Missouri.

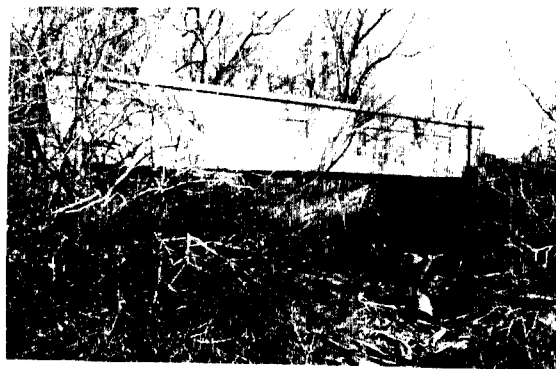
**NAME(S) OF STRUCTURE**  
Cave Springs Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 052009.4; Greene County Court Record, Book 42, page 28 (12 April 1915) - located at Greene County Courthouse, Springfield MO.

**INVENTORIED BY**  
Clayton B. Fraser

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
23 January 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**  
Hackney Mill Bridge  
MHTD: 054012.7

GREN19

**DATE(S) OF CONSTRUCTION**  
1895-96

**LOCATION**

Farm Road 54 over Little Sac River; S7, T30N, R22W  
3.3 miles northeast of Willard; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP determined non-eligible (score: 52)

**CONDITION**

fair

**OWNER**

Greene County

span number: 1  
span length: 100.0'  
total length: 142.0'  
roadway wdt.: 12.5'

superstructure: wrought iron or steel, 6-panel, pin-connected Pratt through truss; steel, 5-panel, pin-connected Pratt pony truss approach span, and 1 steel stringer approach span on the south end  
substructure: stone masonry abutments; concrete-filled iron cylinder piers under main span  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (1 looped square eyerod at the hip); diagonal: 2 looped rectangular eyebars; counter: square eyebar with turnbuckle; upper lateral bracing: round eyerod with turnbuckle; lower lateral bracing: round rod with threaded ends; strut: I-beam; floor beam: I-beam, U-bolted to vertical; guardrail: 2 channels; portal builder's plate: 1895 / Wrought Iron Bridge Co / Builders / Canton, Ohio

The Hackney Mill Bridge carries Greene County Farm Road 54 across the Little Sac River some three miles northeast of Willard. The pinned Pratt truss features a timber deck over steel stringers and is supported by stone abutments and concrete-filled iron cylinder piers. Greene County Court records reveal that in May of 1895 the bridge commissioner and members of the court visited Hackney Mill on the Little Sac River to view the site of a proposed bridge. The court members evidently viewed the site favorably because just over one month later, on June 12th, a contract to fabricate and erect the structure's main span was let to the Wrought Iron Bridge Company of Canton, Ohio. Construction of the bridge's approach spans was apparently handled as a separate bidding process, but on November 25, 1895, the Wrought Iron Bridge Company was awarded that contract as well. WIBCo used its patented designs to fabricate the trusses, completing the Hackney Mill Bridge by May 1896. Subsequent court records show that repair work on the bridge was carried out in June 1900 and in February 1911. The Hackney Mill Bridge continues to carry rural traffic in unaltered condition.

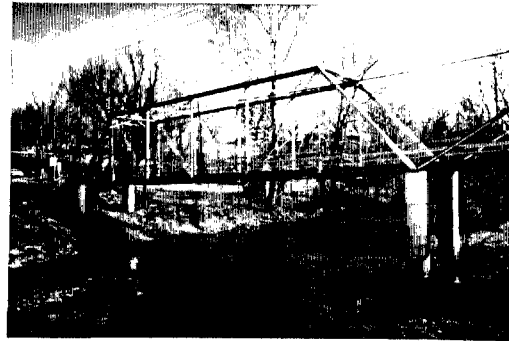
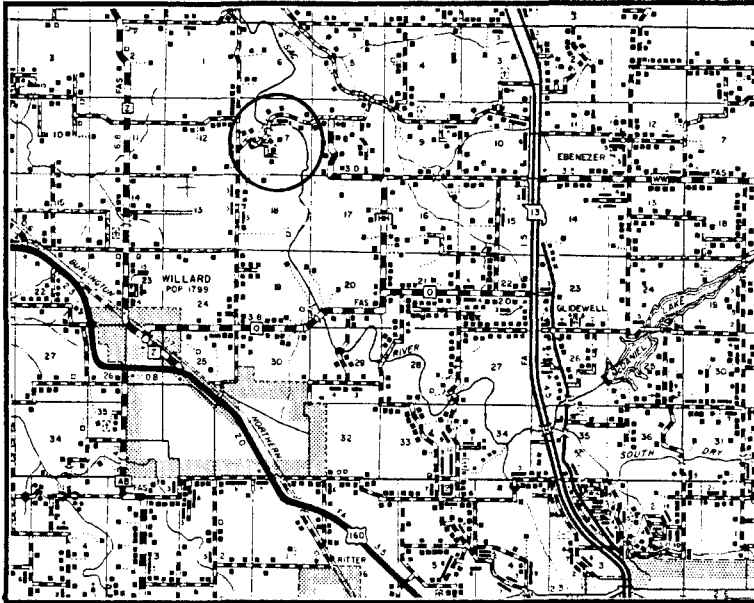
In the early 1880s, the pin-connected Pratt truss superseded the bowstring arch-truss as the iron bridge of choice for medium-span wagon crossings. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design is distinguished by vertical members acting in compression and diagonals that act in tension. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty (250) feet in length," noted bridge engineer J.A.L. Waddell in 1916. "Its advantages are simplicity, economy of metal, and suitability for connection to the floor and lateral systems." Virtually all of the regional bridge fabricators manufactured Pratt trusses and marketed them



extensively to Missouri's counties. The Wrought Iron Bridge Company was a major player in Missouri during the late 19th century, and this structure represents that company's penchant for pinned truss construction. With an erection date of 1895, the Hackney Mill Bridge is distinguished as one of the oldest originally placed Pratt trusses in Missouri. It is thus technologically and historically significant, well-preserved, transportation-related resource.

**NAME(S) OF STRUCTURE**  
Hackney Mill Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 054012.7; Greene County Court Record, Book S: pages 415-416 (25 November 1895), page 579 (4 February 1896), page 580 (4 February 1896), page 584 (5 February 1896); Greene County Court Record, Book T: page 96 (15 May 1896) - located at Greene County Courthouse, Springfield MO; "Hackney Bridge Proposal Draws Fire," *Springfield Leader & Press*, 20 August 1985; oral interview with Russell Mahan, conducted by Clayton Fraser, 23 January 1990; field inspection by Clayton Fraser, 23 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sac River Bridge  
MHTD: 065015.5

GREN20

**DATE(S) OF CONSTRUCTION**

1915

**LOCATION**

county road over Sac River; S24, T29N, R23W  
3.2 miles south of Bois d'Arc; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 56)

**CONDITION**

fair

**OWNER**

Greene County

span number:	1	superstructure:	concrete through girder
span length:	32.0'	substructure:	concrete abutments and wingwalls
total length:	33.0'	floor/decking:	concrete deck
roadway wdt.:	15.0'	other features:	concrete guardrails with recessed rectangular panels

This single-span concrete bridge carries a county road over a branch of the Sac River south of Bois d'Arc. The structure features a concrete deck supported between the concrete mass abutments by a pair of through girders. It is simply detailed, with recessed rectangular panels on the girder sides as the only architectural expression. The Sac River Bridge dates to 1915. In April of that year the Greene County Court received bids for three concrete structures: a 36-foot through girder span northwest of Willard, an 8-foot concrete arch culvert west of Phoenix and this 32-foot through girder. The contract to build all three was awarded to the Canton Bridge Company of Ohio for \$1300.00. Canton completed the three small-scale bridges later that year. Since that time, the Sac River Bridge has functioned in place, without substantial alteration.

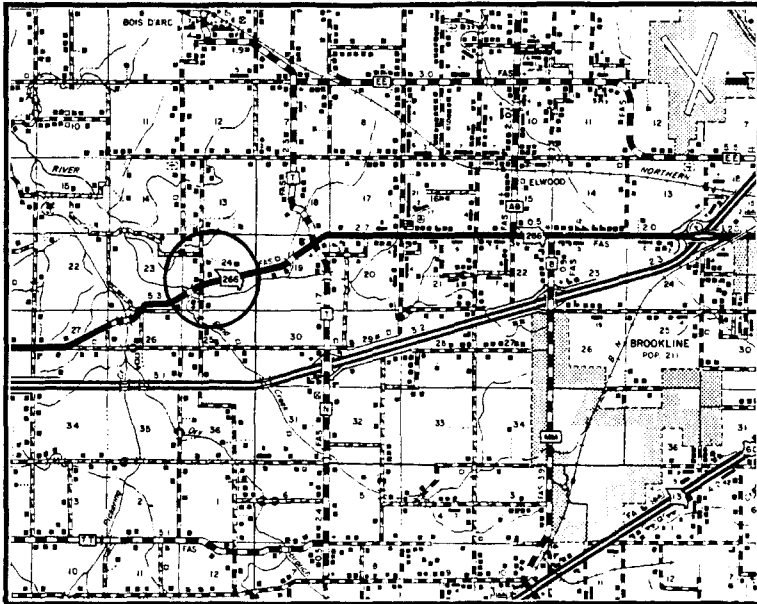
Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. The Sac River Bridge is distinguished among these as one of less than ten concrete through girders found in the state. Modestly scaled and simply detailed, it is noteworthy as an early, well-preserved example of concrete bridge construction in Missouri.



---

**NAME(S) OF STRUCTURE**

Sac River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 065015.5; Greene County Court Record, Book 42, page 28 (12 April 1915) - located at Greene County Courthouse, Springfield MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sac River Bridge  
MHTD: 128003.9

GREN27

**DATE(S) OF CONSTRUCTION**

1918

**LOCATION**

county road over Sac River; S15, T29N, R24W  
7.1 miles southeast of Ash Grove; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 49)

**CONDITION**

fair

**OWNER**

Greene County

span number:	1	superstructure:	concrete filled spandrel arch, skewed
span length:	45.0'	substructure:	concrete abutments and wingwalls
total length:	47.0'	floor/decking:	concrete deck over earth fill
roadway wdt.:	16.2'	other features:	concrete guardrails with recessed rectangular panels

Among the more than thirty Greene County bridges included in Missouri's statewide historic bridge inventory is this medium-span concrete arch over the Dry Sac River. The structure carries a county road some 7 miles south of Ash Fork, in southwestern Greene County. The bridge consist of a filled spandrel concrete arch, which is supported on a skew by concrete abutments. Typical of its local design and relatively early construction, the arch is simply detailed, with plainly formed sidewalls and solid concrete parapets that feature rectangular recessed panels, corbeled coping and modest bulkheads at the ends. The Sac River Bridge has suffered minor collision damage to its parapet walls, but otherwise remains intact. The bridge traces its origins to early 1918, when Greene County Highway Engineer Fred Johnson designed several concrete arches to carry county roads. In April the Greene County Court solicited competitive proposals to build six arches: four 16-foot spans, a 48-foot arch over Wilson Creek north of Battlefield [GREN12], and this 45-foot span over the Sac River. After reviewing the bids the following month, the county awarded a construction contract to the Republic Concrete Construction Company of Republic, Missouri, for all six bridges (aggregate bid: \$9380.00). Republic must have had a change of fortune at this time, because the firm immediately assigned the county "all its rights, titles, or interest at this time and future date in said contract." The county rescinded its agreement with Republic and the next day contracted with the Pioneer Construction Company of Kansas City to build the six bridges. Pioneer began construction of the five smaller bridges first, delivering the reinforcing steel in July and completing them in October. By year's end the firm had presumably completed the 45-foot arch as well. Since this time, the Sac River Bridge has carried vehicular traffic in essentially unaltered condition.

Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. Of the more than 13,000 pre-1951 bridges identified in Missouri by the statewide historic bridge inventory, only about 85 are filled spandrel concrete arches. These break down into roughly three equal groups: arches built to carry urban streets, those built by the state highway department in the 1920s

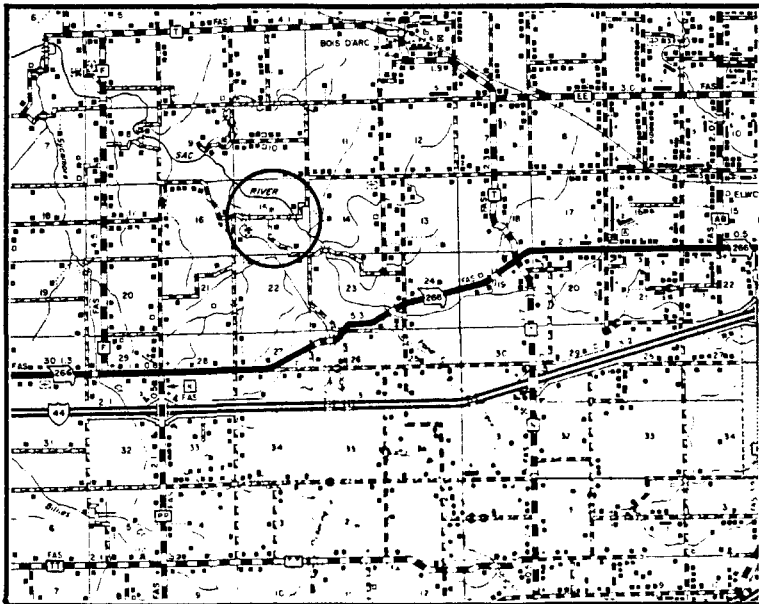


and 1930s to carry highways and those built by the counties at rural county road crossings. The Sac River Bridge falls into the third category. With its 48-foot span and 1918 construction date, it is among the longer and older of these rural county arches. The Sac River Bridge does not display any features that could be regarded as technologically superlative. Rather, the bridge derives its significance from its representation of the broad trend of concrete bridge construction in Missouri. As a well-preserved and well-documented early concrete arch—designed by a county engineer as the state highway department was just beginning to draft standardized plans—the Sac River Bridge is an important transportation-related resource.

---

**NAME(S) OF STRUCTURE**

Sac River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 128003.9; Greene County Court Record, Book 45: pages 591-593 (28 May 1918), page 613 (10 June 1918); Greene County Court Record, Book 46: page 61 (31 July 1918), page 180 (17 October 1918) - located at the Greene County Courthouse, Springfield MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

River Road Bridge  
MHTD: 407522.0

GREN32

**DATE(S) OF CONSTRUCTION**

1922-23

**LOCATION**

River Road over James River; S16, T28N, R21W  
Springfield; Greene County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / city street bridge

**RATING** NRHP possibly eligible (score: 57)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1; 2  
span length: 160.0'; 60.0'  
total length: 287.0'  
roadway wdt.: 19.8'

superstructure: steel, 8-panel, rigid-connected Parker through truss; two Warren pony truss approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over steel stringers  
other features: steel angle guardrails

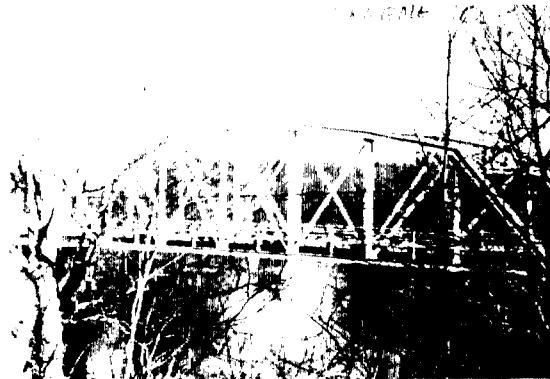
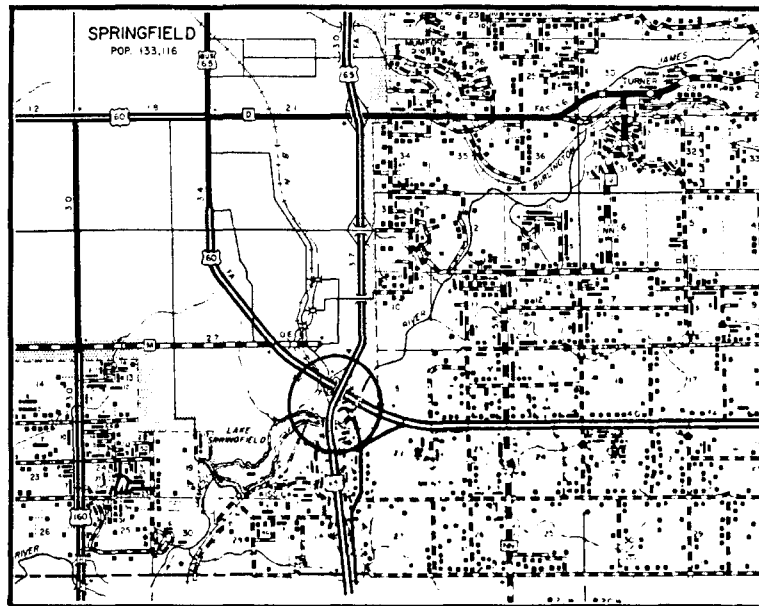
Spanning the James River in Springfield, the Greene County seat, this long-span structure was designed by the Missouri State Highway Department in 1922 as part of construction on Highway Project No. 162. As delineated by the agency's bridge department, the structure consisted of a Parker through trusses flanked by Warren pony truss approaches - all rigid-connected spans supported by concrete piers and abutments. In December 1922 the highway department contracted with M.E. Gillioz of Monett, Missouri, to build the bridge. The contractors worked through early 1923, completing the structure that July for a total cost of \$27,015.40. The James River Bridge carried heavy interstate traffic for years before its replacement with another, wider span and a re-routing of U.S. 60. Since that time its has carried intermittent traffic on a Springfield city street.

In the 1921-22 biennium, the highway department prepared special designs for 293 structures, for an aggregate length of some 20,000 feet and a cost in excess of \$2.3 million. The James River Bridge, one of these special designs, is noteworthy as the one of the earliest uses by MSHD of the riveted Parker through truss—a structural type that would become a mainstay for the agency on long-span crossings.

---

**NAME(S) OF STRUCTURE**

River Road Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 407522.0; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Board, **Third Biennial Report: 1921-1922**, page 127-28, 138; Missouri State Highway Board, **Fourth Biennial Report: 1923-1924**, page 149.

**INVENTORIED BY**

Clayton Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

23 January 1990

---

# HICKORY COUNTY

---

**INCLUDED:** [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*HICK01	026000.7	Rough Hollow Bridge	1-180' <b>pinned Pratt through truss</b> 1891 Wrought Iron Bridge Company
*HICK02	090001.0	Dorman Bridge	1-200' <b>pinned Parker through truss</b> c1920

**EXCLUDED:**

Steel stringer

007000.3	012002.0	016002.5	022000.2	049000.5	057001.3	059000.8
067001.0	069002.0	111001.0	111002.5	117000.8	125001.3	151000.0
164001.7						

Steel girder  
023003.0

Concrete girder

F1107	K 91R1	X 147	064002.3
-------	--------	-------	----------

Concrete slab

H 446	H 447	T 858	016001.0	035000.0	048001.0	058001.5
087001.1	116001.3	119001.5				

Concrete box culvert

F 94R	K 729	K 730	T 952	T 953	W 188	X 146
X 713	X 988	094001.0				

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	0	2	0	0	2
Excluded	15	25	0	0	40
	15	27	0	0	42 structures



# Rough Hollow Bridge

HICK01

## GENERAL DATA

structure no.:	026000.7	city/town:	2.8 miles north of Hermitage
county:	Hickory	feature inters.:	Pomme de Terre River
		cadastral grid:	S2, T37N, R22W
		highway route:	County Road 281
		highway distr.:	8
		current owner:	Hickory County

## STRUCTURAL DATA

**superstructure:** wrought iron, 10-panel, pin-connected Pratt through truss, with steel stringer approach spans  
**substructure:** concrete abutments, wingwalls and pier

span number:	1	condition:	fair
span length:	180.0'	alterations:	truss moved to current location, 1932
total length:	257.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.8'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped eyerods at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; upper lateral bracing: round rod with turnbuckles; lower lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: 4 angles with lacing; floor beam: tapered "fishtail" plate girder, U-bolted to vertical; guardrail: non-original wire rope

## HISTORICAL DATA

**erection date:** 1890-91  
**erection cost:** \$5699.00 (contract amount)  
**designer:** Wrought Iron Bridge Company, Canton OH  
**fabricator :** Wrought Iron Bridge Company, Canton OH;  
Carnegie Steel Company, Pittsburgh PA  
**contractor:** Wrought Iron Bridge Company, Canton OH  
**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 026000.7; Hickory County Court Record, Book H: page 302 (9 May 1890), page 325 (21 June 1890), page 382 (31 December 1890), page 408 (6 May 1891); Book I: page 317 (7 August 1895); Book P: page 331 (November 1923), page 358 (5 February 1924), page 392 (5 May 1924), page 401 (7 May 1924), page 453 (7 August 1924), page 623 (7 September 1925); Book Q: page 437 (10 August 1928), page 445 (4 September 1928); Book R: page 361 (4 November 1931), page 376 (30 December 1931), page 480 (4 May 1932), page 520 (3 September 1932) - located at Hickory County Courthouse, Hermitage MO; field inspection by Clayton Fraser, 29 January 1990.

## Rough Hollow Bridge

sign. rating: 50  
evaluation: NRHP possibly eligible (excellent early wagon truss; Hickory County's most significant bridge)

inventoried by: Clayton B. Fraser    28 February 1990

# Dorman Bridge

HICK02

## GENERAL DATA

structure no.:	090001.0	city/town:	1.6 miles south of Hermitage
county:	Hickory	feature inters.:	Pomme de Terre River
		cadastral grid:	S34/35, T37N, R22W
		highway route:	County Road 90
		highway distr.:	8
		current owner:	Hickory County

## STRUCTURAL DATA

superstructure:	steel, 12-panel, pin-connected Parker through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and spill-through pier		
span number:	1	condition:	fair
span length:	200.0'	alterations:	moved to current location, 1933-34
total length:	404.0'	floor/decking :	timber deck over steel channels
roadway width:	13.7'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 angles with lacing; diagonal: 2 punched rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date:	c1920; moved c1933
erection cost:	unknown
designer:	unknown
fabricator :	Illinois Steel Company, Chicago IL
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 090001.0; Hickory County Court Record, Book S: page 37 (7 August 1933), page 49 (1 September 1933), page 51 (2 September 1933), page 57 (2 October 1933), page 170 (7 November 1934), page 174 (3 December 1934) - located at Hickory County Courthouse, Hermitage MO; field inspection by Clayton Fraser, 29 January 1990.
sign. rating:	35
evaluation:	NRHP non-eligible (long-span example of pinned Parker through truss construction, moved and inadequately documented)

Inventoried by: Clayton B. Fraser    28 February 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Rough Hollow Bridge  
MHTD: 026000.7

HICK01

**DATE(S) OF CONSTRUCTION**

1890-91

**LOCATION**

County Road 281 over Pomme de Terre River; S2, T37N, R22W  
2.8 miles north of Hermitage; Hickory County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

fair

**OWNER**

Hickory County

span number: 1  
span length: 180.0'  
total length: 257.0'  
roadway wdt.: 13.8'

superstructure: wrought iron, 10-panel, pin-connected Pratt through truss, with steel stringer approach spans  
substructure: concrete abutments, wingwalls and pier  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped eyerods at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; upper lateral bracing: round rod with turnbuckles; lower lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: 4 angles with lacing; floor beam: tapered "fishtail" plate girder, U-bolted to vertical; guardrail: non-original wire rope

On May 9, 1890, the Hickory County Court ordered the county surveyor to measure for an iron bridge across the Pomme de Terre River near Hermitage, the county seat. The surveyor was instructed to investigate two crossings—one east of town, the other south—"and ascertain as near as practicable the cost of construction thereof at both places." The court selected the ford east of Hermitage to erect the bridge and in June awarded a contract for its fabrication and erection to the Wrought Iron Bridge Company. WIBCo machine-riveted the pin-connected components for the 180-foot Pratt truss at its Canton, Ohio, shops, shipping the pieces to the railroad depot at Hermitage by the end of the year. By May 18791 the Hermitage Bridge was completed and opened to wagon traffic. Known alternately as the East Iron Bridge, for years this was the county's only such structure and was often referred to simply as "the iron bridge." The structure carried mainline traffic at the center of Hickory County for over 30 years, as the county road was eventually upgraded to State Highway 64, and later to U.S. Highway 54. With its 14-foot width, the East Iron Bridge eventually began to form a bottleneck to traffic into the county seat. In 1923 the state highway department replaced it with a wider, heavier truss. The old span was allowed to stand unused while factions in the county argued about its disposition. Finally, in August 1928 the Hermitage Special Road District Commissioner advised the court that the bridge could be torn down and reused elsewhere as the court saw fit. Three years later, on December 30, 1931, a contract was let to local contractor C.C. Brookshire to move the structure to the Rough Hollow Ford across the Pomme de Terre north of Hermitage. Brookshire disassembled the span and re-erected it on a new concrete substructure the next year. Soon known as the Rough Hollow Ford Bridge, the structure has served in that location, with no further alteration, since that time.

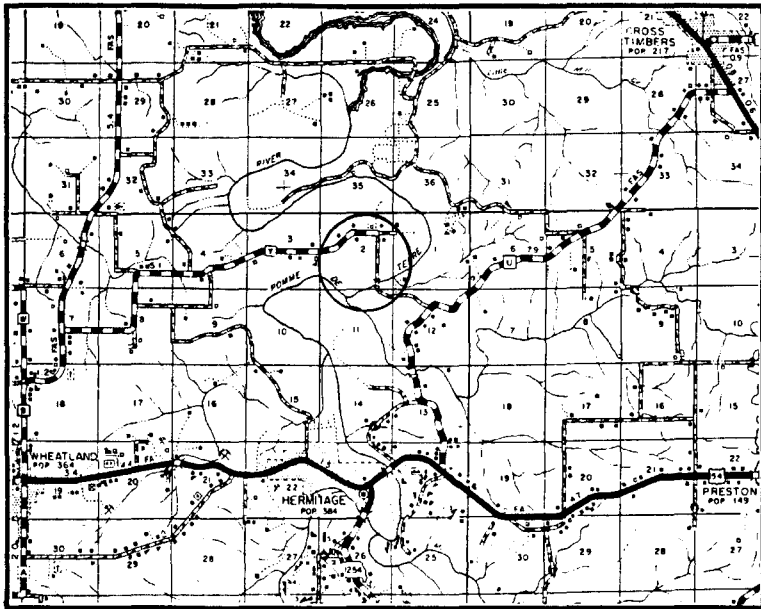


Like virtually all of Missouri's counties, Hickory County followed a definite progression in its bridge construction in the 19th century, responding to evolving transportation needs and to technological development in the bridge building industry. The first simple spans, built as the county was undergoing its initial settlement, were rudimentary timber structures: cheap and easy to build but lacking in durability and limited in span length. With greater revenues from increased settlement, the county could undertake longer timber trusses in the 1870s and 1880s. Beginning with the Hermitage Bridge in 1890, the timber spans were superseded by all-metal trusses. This last transition came slowly in Hickory County, however, due to the region's relative poverty. So while counties elsewhere in Missouri were undertaking ambitious bridge construction programs in the 1890s, Hickory County could afford but one major span at the county seat. Though later moved to another crossing of the Pomme de Terre, this structure is historically significant as the lone surviving all-iron wagon bridge in the county from its formative period. With its 1890-91 construction date and 180-foot span, the Rough Hollow Bridge is among Missouri's more noteworthy 19th century wagon trusses: an important transportation-related resource.

---

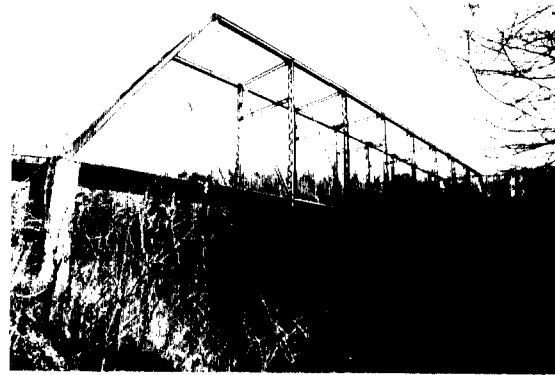
**NAME(S) OF STRUCTURE**  
Rough Hollow Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 026000.7; Hickory County Court Record, Book H: page 302 (9 May 1890), page 325 (21 June 1890), page 382 (31 December 1890), page 408 (6 May 1891); Book I: page 317 (7 August 1895); Book P: page 331 (November 1923), page 358 (5 February 1924), page 392 (5 May 1924), page 401 (7 May 1924), page 453 (7 August 1924), page 623 (7 September 1925); Book Q: page 437 (10 August 1928), page 445 (4 September 1928); Book R: page 361 (4 November 1931), page 376 (30 December 1931), page 480 (4 May 1932), page 520 (3 September 1932) - located at Hickory County Courthouse, Hermitage MO; field inspection by Clayton Fraser, 29 January 1990.

---

**INVENTORIED BY**

Michelle Crow-Dolby

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

12 May 1992

---

# LACLEDE COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*LACL01	G 245	Gasconade River Bridge	<b>2-160'</b> riveted Parker through truss 1924 Riley and Bailey Constr. Co.
LACL02	J 881	Osage Fork Bridge	<b>3-100'</b> rivet polyg. Warren pony truss 1933 Kelly and Underwood
LACL03	S 326	Osage Fork Bridge	<b>1-150'</b> riveted Parker through truss 1933 Deering and Davidson
LACL04	S 327	Gasconade River Bridge	<b>2-150'</b> riveted Parker through truss 1933 George W. Condon
LACL05	T 408	Spring Creek Bridge	<b>3- 37'</b> concrete filled spandrel arch 1934 L.G. Barcus
LACL06	T 409	Mill Race Bridge	<b>1- 27'</b> concrete filled spandrel arch 1934 L.G. Barcus
*LACL07	212000.7	Lambeth Bridge	<b>3-124'</b> pinned Pratt through truss 1908 Illinois Steel Bridge Company

## EXCLUDED:

Warren pony truss  
091001.9

Steel stringer

G 248R1 K 180 S 325 042001.5 081000.7 281002.1

Concrete girder

J 560 T 671 T 672 W 521 X 440 038000.4 091001.8  
097001.2 182000.5 229003.0 264001.2 295001.9 354001.8  
373001.5 373002.0

Concrete slab

F 772R X 792 009000.7 020000.9 148002.8 247000.9 300002.5  
301002.5 362000.9 371000.2 375000.8 381000.8 381001.0

Concrete box culvert

J 546 L 374R T 673 W 556 X 727 X 728 X 756  
X 782 X 783 X 923 Y 760 Y 763 243000.1 355000.3

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	6	1	0	0	7
Excluded	22	28	0	0	50
	28	29	0	0	57 structures



# Gasconade River Bridge

LACL01

## GENERAL DATA

structure no.:	G 245	city/town:	12.6 miles northeast of Lebanon
county:	Laclede	feature inters.:	Gasconade River
		cadastral grid:	S22/23, T35N, R14W
		highway route:	Interstate 44 Frontage Road
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 8-panel, rigid-connected Parker through truss; 6-panel, rigid-connected Pratt through truss; 4-panel rigid-connected Warren pony truss		
substructure:	concrete abutments, wingwalls and piers		
span number:	2; 1	condition:	excellent
span length:	160.0'; 120.0'	alterations:	none
total length:	526.0'	floor/decking :	asphalt over concrete, with steel stringers
roadway width:	20.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: lattice; floor beam: I-beam; guardrail: steel pipe with Armco at approaches

## HISTORICAL DATA

erection date:	1922-24
erection cost:	\$70,273.40
designer:	Missouri State Highway Department
fabricator :	Illinois Steel Company, Chicago IL
contractor:	Riley and Bailey Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 245; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, <b>Third Biennial Report</b> : 1921-1922, page 127-28, 140; Missouri State Highway Board, <b>Fourth Biennial Report</b> : 1923-1924, page 155; field inspection by Clayton Fraser, 30 January 1990.
sign. rating:	59
evaluation:	NRHP possibly eligible (well-preserved, multiple-span example of early MSHD truss design)

Inventoried by: Clayton B. Fraser    28 February 1992

# Osage Fork Bridge

LACL02

## GENERAL DATA

structure no.:	J 881	city/town:	10.0 miles southeast of Lebanon
county:	Laclede	feature inters.:	Osage Fork
		cadastral grid:	S33, T33N, R15W
		highway route:	State Highway 5
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 10-panel, rigid-connected Warren pony truss with polygonal upper chords		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	100.0'	alterations:	none
total length:	308.0'	floor/decking:	concrete deck over steel stringers
roadway width:	24.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: wide flange; diagonal: wide flange; lateral bracing: 1 angle; floor beam: I-beam; guardrail: steel

## HISTORICAL DATA

erection date:	1932-33
erection cost:	\$27,739.40
designer:	Missouri State Highway Department
fabricator:	unknown
contractor:	Kelly and Underwood
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 881; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	59
evaluation:	NRHP possibly eligible (excellent, early example of MSHD long-span pony truss design)

inventoried by: Clayton B. Fraser    28 February 1992

# Osage Fork Bridge

---

LACL03

## GENERAL DATA

structure no.:	S 326	city/town:	11.3 miles east of Lebanon
county:	Laclede	feature inters.:	Osage Fork
		cadastral grid:	S27, T34N, R14W
		highway route:	State Highway 32
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, rigid-connected Parker through truss with steel stringer approach spans

substructure: concrete abutments, wingwalls and spill-through piers

span number:	1	condition:	good
span length:	150.0'	alterations:	none
total length:	423.0'	floor/decking :	concrete deck over steel stringers
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date: 1933

erection cost: \$20,745.69

designer: Missouri State Highway Department

fabricator : unknown

contractor: Deering and Davidson

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 326; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

sign. rating: 39

evaluation: NRHP non-eligible (typically configured example of MSHD truss design)

Inventoried by: Clayton B. Fraser    28 February 1992

# Gasconade River Bridge

---

LACL04

## GENERAL DATA

structure no.:	S 327	city/town:	17.4 miles southeast of Lebanon
county:	Laclede	feature inters.:	Gasconade River
		cadastral grid:	S3, T33N, R13W
		highway route:	State Highway 32
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, rigid-connected Parker through truss, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and spill-through piers		
span number:	2	condition:	good
span length:	150.0'	alterations:	none
total length:	644.0'	floor/decking :	concrete deck over steel stringers
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1932-33
erection cost:	\$27,074.18
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	George W. Condon
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 327; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	44
evaluation:	NRHP non-eligible (typically configured example of MSHD truss design)

inventoried by: Clayton B. Fraser    28 February 1992

# Spring Creek Bridge

---

LACL05

## GENERAL DATA

structure no.:	T 408	city/town:	12.0 miles west of Lebanon
county:	Laclede	feature inters.:	Spring Creek
		cadastral grid:	S31, T35N, R17W
		highway route:	State Highway 64A
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	37.0'	alterations:	none
total length:	129.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	stone veneer on sidewalls and parapets

## HISTORICAL DATA

erection date:	1934
erection cost:	\$2915.15
designer:	Missouri State Highway Department
fabricator :	none
contractor:	L.G. Barcus
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number T 408; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	41
evaluation:	NRHP non-eligible (small-scale example of MSHD concrete arch design)

inventoried by: Clayton B. Fraser    28 February 1992

# Mill Race Bridge

---

LACL06

## GENERAL DATA

structure no.:	T 409	city/town:	12.0 miles west of Lebanon
county:	Laclede	feature inters.:	Mill Race Creek
		cadastral grid:	S31, T35N, R17W
		highway route:	State Highway 64A
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	good
span length:	27.0'	alterations:	none
total length:	27.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	stone veneer on sidewalls and parapets

## HISTORICAL DATA

erection date:	1934
erection cost:	unknown
designer:	Missouri State Highway Department
fabricator :	none
contractor:	L.G. Barcus
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number T 409; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	28
evaluation:	NRHP non-eligible (small-scale example of MSHD concrete arch design)

inventoried by: Clayton B. Fraser    28 February 1992

# Lambeth Bridge

LACL07

## GENERAL DATA

structure no.:	212000.7	city/town:	11.3 miles southeast of Lebanon
county:	Laclede	feature inters.:	Osage Fork
		cadastral grid:	S9, T33N, R14W
		highway route:	county road
		highway distr.:	8
		current owner:	Laclede County

## STRUCTURAL DATA

superstructure:	steel, 7-panel, pin-connected Pratt through truss, with steel stringer approach span		
substructure:	concrete abutment and wingwalls with concrete piers and steel pile bent abutments; concrete-filled steel cylinder pier and steel pile bent abutment at east end		
span number:	3	condition:	good
span length:	124.0'	alterations:	abutment replaced; pier and appr. span added
total length:	375.0'	floor/decking :	timber deck over timber stringers
roadway width:	12.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with lacing (2 angles with batten plates at hip); diagonal: 2 punched rectangular eyebars; counter: 2 looped square eyebars with turnbuckles; lateral bracing: round bar with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guard-rail: cable; portal strut: lattice with curved knee braces; portal builder's plate: 1908 / W.M. WILSON PRESG. JUDGE / P.A.PART-Low / H.G. HAMILTON / ASSOC. / R. BLICKENS DERFER CO. HY. ENGINEER

## HISTORICAL DATA

erection date:	1908
erection cost:	\$14,150.00 (two-bridge contract)
designer:	Illinois Steel Bridge Company, Jacksonville IL
fabricator :	Illinois Steel Bridge Company, Jacksonville IL; Carnegie Steel Company, Pittsburgh PA
contractor:	Illinois Steel Bridge Company, Jacksonville IL
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 212000.7; Laclede County Court Record, Book N: page 422 (3 December 1907), page 466 (12 March 1908), page 470 (20 March 1908), page 471 (22 April 1908), page 534 (26 May 1908), page 535 (27 May 1908), page 536 (28 May 1908), page

## Lambeth Bridge

566 (11 August 1908), page 612 (7 November 1908), page 623 (11 November 1908), located at Laclede County Courthouse, Lebanon MO; field inspection by Clayton Fraser, 28 February 1990.

sign. rating: 53

evaluation: NRHP possibly eligible (well-preserved, multiple-span example of main-stay structural type)

inventoried by: Clayton B. Fraser 28 February 1992



# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Gasconade River Bridge  
MHTD: G 245

LACL01

**DATE(S) OF CONSTRUCTION**

1922-24

**LOCATION**

Interstate 44 Frontage Road over Gasconade River; S22/23, T35N, R14W  
12.6 miles northeast of Lebanon; Laclede County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 59)

**CONDITION**

excellent

**OWNER**

Missouri Highway and Transportation Department

span number: 2; 1  
span length: 160.0'; 120.0'  
total length: 526.0'  
roadway wdt.: 20.0'

superstructure: steel, 8-panel, rigid-connected Parker through truss; 6-panel, rigid-connected Pratt through truss; 4-panel rigid-connected Warren pony truss  
substructure: concrete abutments, wingwalls and piers  
floor/decking: asphalt over concrete, with steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: lattice; floor beam: I-beam; guardrail: steel pipe with Armco at approaches

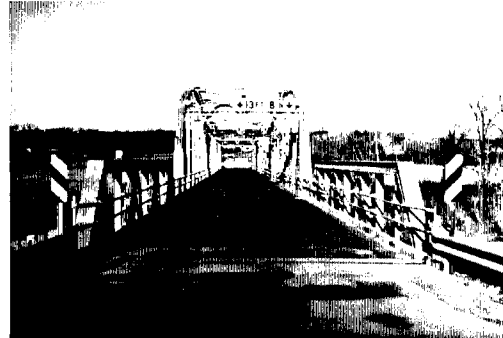
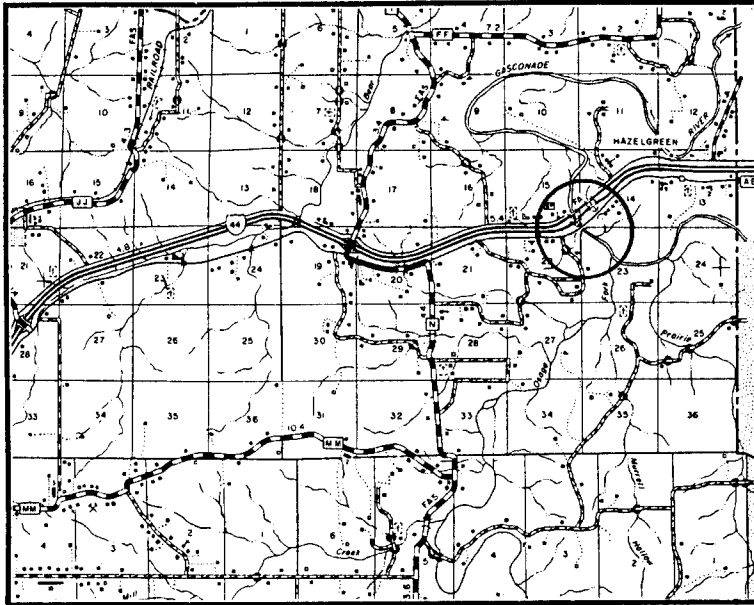
Spanning the Gasconade River at the eastern edge of Laclede County, this long-span structure was designed by the Missouri State Highway Department late in 1922 as part of construction on U.S. Highway 66. As delineated by the agency's bridge department, the structure consisted of two Parker through trusses, one Pratt through truss and a Warren pony truss - all rigid-connected spans supported by concrete piers and abutments. In December 1922 the highway department contracted with the Riley and Bailey Construction Company to build the bridge. The contractors worked throughout 1923 and into 1924 on the immense structure, completing the project in May 1924 for a total cost of \$70,273.40. The Gasconade River Bridge carried heavy interstate traffic for over thirty years before its replacement by Interstate Highway 44 in 1956. Since that time it has carried intermittent traffic on the frontage road for the interstate.

The Gasconade River Bridge is historically significant as a major river crossing on Route 66, one of the most important of the early transcontinental highways. As a major undertaking by the Missouri State Highway Department in its formative years, the bridge marked a milestone of sorts for the fledgling agency. In the 1921-22 biennium, the highway department prepared special designs for 293 structures, for an aggregate length of some 20,000 feet and a cost in excess of \$2.3 million. With an overall length of 526 feet, the Gasconade River Bridge was the largest of the structures (other than the Missouri River bridges at Glasgow, Boonville, Waverly and Lexington) undertaken at this time. The bridge accrues an added degree of significance as one of the oldest examples in the state of the MSHD-designed riveted Parker through truss, a mainstay structural type for long-span highway bridges of the 1920s and 1930s.

---

**NAME(S) OF STRUCTURE**

Gasconade River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 245; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **Third Biennial Report: 1921-1922**, page 127-28, 140; Missouri State Highway Board, **Fourth Biennial Report: 1923-1924**, page 155; field inspection by Clayton Fraser, 30 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

28 February 1992

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Osage Fork Bridge  
MHTD: J 881

LACL02

**DATE(S) OF CONSTRUCTION**

1932-33

**LOCATION**

State Highway 5 over Osage Fork; S33, T33N, R15W  
10.0 miles southeast of Lebanon; Laclede County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 59)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3	superstructure: steel, 10-panel, rigid-connected Warren pony truss with polygonal upper chords
span length: 100.0'	substructure: concrete abutments, wingwalls and piers
total length: 308.0'	floor/decking: concrete deck over steel stringers
roadway wdt.: 24.0'	other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: wide flange; diagonal: wide flange; lateral bracing: 1 angle; floor beam: I-beam; guardrail: steel

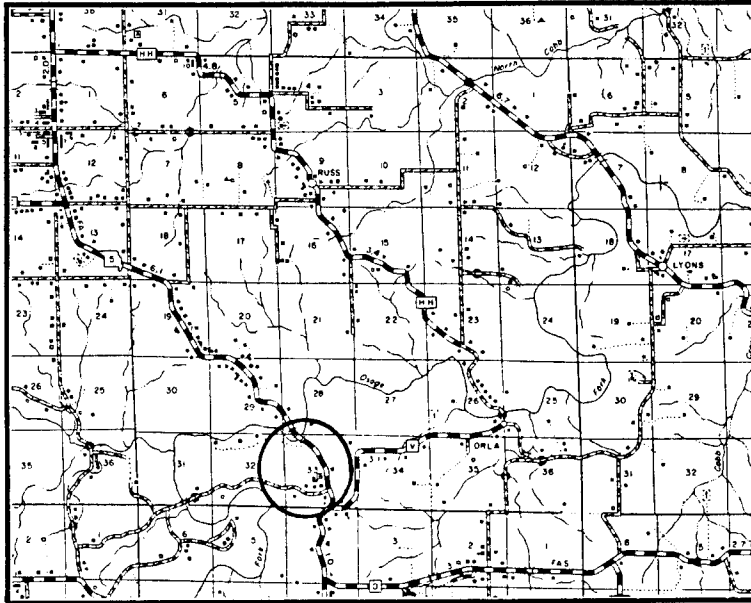
This long-span pony truss carries Missouri State Highway 5 over Osage Fork some 10 miles southeast of Lebanon, in Laclede County. The Osage Fork Bridge is comprised of three rigid-connected Warren pony truss spans, with polygonal upper chords, all supported by a concrete substructure. The Osage Fork Bridge was designed by the state highway department in the summer of 1932 and built in 1932-33 by contractors Kelly and Underwood for almost \$28,000. Since its completion, the bridge has functioned in place, without substantial alteration.

The Missouri State Highway Department used riveted Warren configurations for its pony trusses almost from the time the agency developed its first bridge standards around 1920. Structurally straightforward and versatile, these ubiquitous trusses were erected by the hundreds throughout the state in span lengths ranging from 40 to 100 feet. In the early 1930s the highway department designed Warren trusses with polygonal upper chords, a variation that was more materially conservant than the straight-chorded Warren for long-span applications. Relatively few of these Warren subtypes were built during the decade, due more to their extreme span length than to their utility. Approximately fifteen of these polygonal Warren pony trusses have been identified as extant by the statewide bridge inventory, all built between 1932 and 1940 and all spanning between 100 and 110 feet. Fabricated from essentially the same drawings, their superstructures were virtually identical. The Osage Bridge is distinguished among these as the oldest documented example of this mainstay long-span truss type.

---

**NAME(S) OF STRUCTURE**

Osage Fork Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 881; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

28 February 1992

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Lambeth Bridge  
MHTD: 212000.7

LACL07

**DATE(S) OF CONSTRUCTION**

1908

**LOCATION**

county road over Osage Fork; S9, T33N, R14W  
11.3 miles southeast of Lebanon; Laclede County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP potentially eligible (score: 53)

**CONDITION**

good

**OWNER**

Laclede County

span number: 3  
span length: 124.0'  
total length: 375.0'  
roadway wdt.: 12.0'

superstructure: steel, 7-panel, pin-connected Pratt through truss with steel stringer approach span  
substructure: concrete abutment and wingwalls with concrete piers and steel pile bent abutments; concrete-filled steel cylinder pier and steel pile bent abutment at east end  
floor/decking: timber deck over timber stringers  
other features: upper chord / inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with lacing (2 angles with batten plates at hip); diagonal: 2 punched rectangular eyebars; counter: 2 looped square eyebars with turnbuckles; lateral bracing: round bar with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guardrail: cable; portal strut: lattice with curved knee braces; portal builder's plate: 1908 / W.M. WILSON PRESG. JUDGE / P.A. PARTLOW / H.G. HAMILTON / ASSOC. / R. BLICKENSDERFER CO. HY. ENGINEER

Late in 1907 the Laclede County Court was searching for the "most feasible points on the Gasconade and Osage Fork Rivers for constructing a bridge." County highway engineer Robert Blickensderfer had selected two crossings - the Casey and Bowman crossings - on the Gasconade and three - Lambeth, Hannah and Orea - on the Osage. After entertaining petitions and arguments for these and other prospective sites over the next three months, the court in March selected the Dougan Ford over the Gasconade River and the Lambeth Ford over the Osage Fork, east of Lyons, for permanent bridges. Blickensderfer surveyed both sites later that month, drew up plans and specifications, and advertised for competitive bids from bridge companies. (The companies were allowed to submit their own plans, "provided they confirm with the county's plan generally.") In May 1908 the county awarded a contract to fabricate and erect the two bridges to the Illinois Steel Bridge Company of Jacksonville, Illinois. Both structures were to be complete by the end of the year for a total cost of \$14,150. The contractors poured the concrete substructure that summer and, using members rolled by the Carnegie Steel Company, erected the three pinned Pratt through trusses by November. The Lambeth Bridge served as a major regional crossing of the Osage Fork, until supersedure of the route by State Supplementary Road B. Its east abutment has subsequently been replaced by a steel cylinder pier and a steel stringer approach span added to widen the river channel, but the structure remains otherwise intact, as it now carries intermittent county-road traffic.

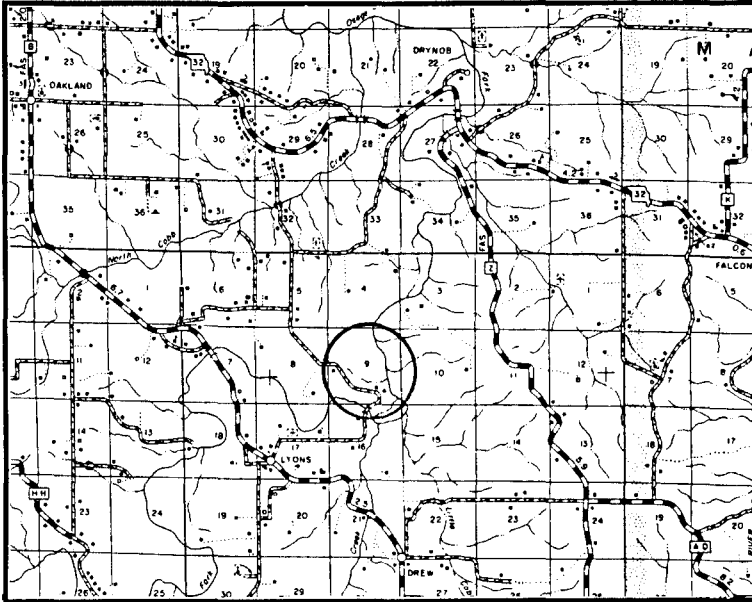


Among the out-of-state bridge contractors active in Missouri in the early 1900s, the Illinois Steel Bridge Company was one of the most prolific. The Lambeth Bridge reflects the firm's proclivity for pinned Pratt trusses for medium-span applications—a standard truss type used by virtually all of the major bridge fabricators at the time. Thousands of pinned Pratt through trusses were erected throughout the state during the early 20th century, many of which remain in place today. What distinguishes the Lambeth Bridge among these is its multiplicity of spans. Although a large number of multi-span trusses were built across Missouri's major rivers, very few have survived the subsequent attrition. The Lambeth Bridge is thus technologically significant as a well-preserved, multi-span example of a pin-connected roadway truss bridge.

---

**NAME(S) OF STRUCTURE**

Lambeth Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 212000.7; Laclede County Court Record, Book N: page 422 (3 December 1907), page 466 (12 March 1908), page 470 (20 March 1908), page 471 (22 April 1908), page 534 (26 May 1908), page 535 (27 May 1908), page 536 (28 May 1908), page 566 (11 August 1908), page 612 (7 November 1908), page 623 (11 November 1908), located at Laclede County Courthouse, Lebanon MO; field inspection by Clayton Fraser, 28 February 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

28 February 1992

---



# OZARK COUNTY

---

INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	FHWA	Bridge Name	Description
*OZAR01	K 817R	Bull Shoals Lake Bridge	10-180' <b>riveted Camelback through truss</b> 1952 Maxwell Bridge Company
*OZAR02	253000.3	Barren Fork Bridge	3- 80' <b>concrete filled spandrel arch</b> 1925 Republic Concrete Constr. Co.

## EXCLUDED:

Warren pony truss  
 S 475

Steel stringer  
 S 476 189000.4 254000.1 255000.5

Concrete girder  
 X 768 156000.2

Concrete slab						
T 968	X 990	Y 579	015002.5	107001.1	113002.0	119000.5
119000.9	134001.7	134002.6	137000.8	152001.9	156000.1	184000.1
193000.8	256000.1					

Concrete box culvert  
 S 78 S 477 S 610 Y 494

Timber stringer  
 223004.9

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	1	1	0	0	2
Excluded	10	18	0	0	28
	11	19	0	0	30 structures

# Bull Shoals Lake Bridge

OZAR01

## GENERAL DATA

structure no.:	K 817R	city/town:	12.0 miles southwest of Gainesville
county:	Ozark	feature inters.:	Bull Shoals Lake
		cadastral grid:	S19, T22N, R15W
		highway route:	State Highway 160
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 8-panel, rigid-connected Camelback through truss		
substructure:	concrete abutments, wingwalls and piers		
span number:	10	condition:	excellent
span length:	180.0'	alterations:	none
total length:	1817.0'	floor/decking :	asphalt-covered concrete deck over steel road-stringers
way width:	22.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: wide flange; diagonal: wide flange; counter: 2 angles with batten plates; lateral bracing: 2 angles with batten plates -top, 1 angle - bottom; strut: built-up I-beam; floor beam: I-beam; guardrail: 2 steel channels (Armco at approach spans)

## HISTORICAL DATA

erection date:	1951-52
erection cost:	\$927,965.80
designer:	Missouri State Highway Department
fabricator :	U.S. Steel Company, Pittsburgh PA
contractor:	Maxwell Bridge Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 817R; Missouri Highway and Transportation Department, Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.
sign. rating:	63
evaluation:	NRHP possibly eligible (well-preserved, large-scale highway bridge, less than fifty years old)

Inventoried by: Clayton B. Fraser    1 March 1990

# Barren Fork Bridge

---

OZAR02

## GENERAL DATA

structure no.:	253000.3	city/town:	7.1 miles northwest of Gainesville
county:	Ozark	feature inters.:	Barren Fork Creek
		cadastral grid:	S16/17, T23N, R14W
		highway route:	old State Highway 5, now County Road 833
		highway distr.:	8
		current owner:	Ozark County

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	80.0'	alterations:	none
total length:	296.0'	floor/decking :	asphalt-covered concrete deck
roadway width:	20.0'	other features:	MSHD-standard concrete guardrail design with square balusters and angled brackets

## HISTORICAL DATA

erection date:	1925
erection cost:	\$20,995.49
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Republic Concrete Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 253000.3; Missouri State Highway Commission, <b>Fifth Biennial Report</b> : 1925-26, page 203; Missouri Highway and Transportation Department, Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.
sign. rating:	51
evaluation:	NRHP possibly eligible (well-preserved, multiple-span example of MSHD arch bridge construction)

inventoried by: Clayton B. Fraser    1 March 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bull Shoals Lake Bridge  
MHTD: K 817R

OZAR01

**DATE(S) OF CONSTRUCTION**

1951-52

**LOCATION**

State Highway 160 over Bull Shoals Lake; S19, T22N, R15W  
12.0 miles southwest of Gainesville; Ozark County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 63)

**CONDITION**

excellent

**OWNER**

Missouri Highway and Transportation Department

span number: 10  
span length: 180.0'  
total length: 1817.0'  
roadway wdt.: 22.0'

superstructure: steel, 8-panel, rigid-connected Camelback through truss  
substructure: concrete abutments, wingwalls and piers  
floor/decking: asphalt-covered concrete deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: wide flange; diagonal: wide flange; counter: 2 angles with batten plates; lateral bracing: 2 angles with batten plates -top, 1 angle - bottom; strut: built-up I-beam; floor beam: I-beam; guardrail: 2 steel channels (Armco at approach spans)

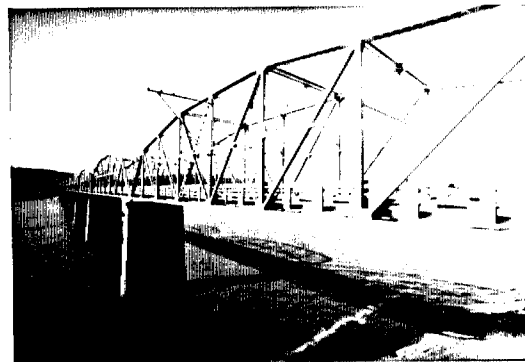
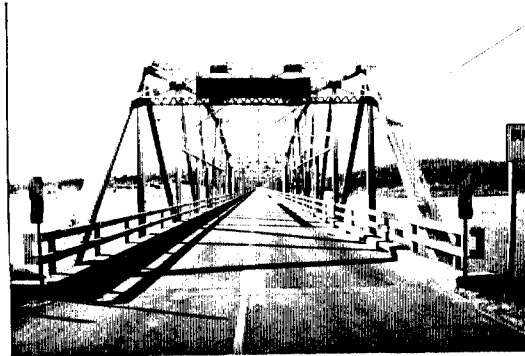
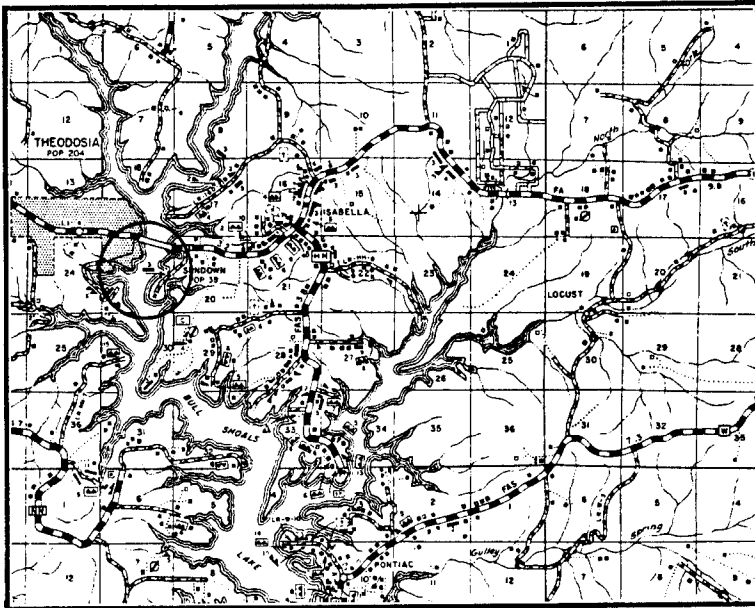
In mid-1941, the Missouri State Highway Department designed a nine-span concrete deck girder bridge to carry State Highway 160 over the North Fork of the White River in western Ozark County. That October a construction contract was awarded to Carruthers and Crouch to build the bridge. They completed the structure the following year. The White River Bridge carried traffic for only ten years before it was threatened by water impounded behind the Bull Shoals Dam. Built by the U.S. Army Corps of Engineers in northern Arkansas, the dam impounded the White River, backing the reservoir over the level of the existing bridge. In 1951 the state highway department designed a replacement structure for this crossing - a ten-span riveted through truss. With an overall length of over 1800 feet, it was more than four times longer than the 1941 bridge; additionally the concrete piers and abutments held the trusses much higher than the girders of the earlier structure. In August a contract was awarded to the Maxwell Bridge Company to build the replacement bridge for \$927,965.80. Since its completion the following year, the new Bull Shoals Lake Bridge has carried traffic in unaltered condition.

From its formative years to the present, the Missouri State Highway Department has always relied on standard designs for its bridges. During the 1920s and 1930s MSHD employed the riveted Pratt truss for its medium-span through truss, with the polygonal-chorded Parker configuration for its longer span trusses. After World War II, steel beam bridges largely superseded Pratt trusses for medium spans, and the riveted Camelback replaced the Parker for long-span trusses. The Bull Shoals Lake Bridge represents this latter construction trend. With its ten Camelback through spans extending some 1800 feet, it is one of the largest trussed crossings undertaken by the state highway department. The bridge has retained a high degree of physical integrity and is an impressive structure as it spans one of the fingers of Bull Shoals Lake. One of just three riveted through Camelbacks identified by the statewide bridge inventory, it is technologically noteworthy as an uncommon, late example of MSHD truss bridge engineering.

---

**NAME(S) OF STRUCTURE**

Bull Shoals Lake Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 817R; Missouri Highway and Transportation Department, Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1990

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Barren Fork Bridge  
MHTD: 253000.3

OZAR02

**DATE(S) OF CONSTRUCTION**

1925

**LOCATION**

old State Highway 5 over Barren Fork Creek; S16/17, T23N, R14W  
7.1 miles northwest of Gainesville; Ozark County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 51)

**CONDITION**

good

**OWNER**

Ozark County

span number: 3  
span length: 80.0'  
total length: 296.0'  
roadway wdt.: 20.0'

superstructure: concrete filled spandrel arch  
substructure: concrete abutments, wingwalls and piers  
floor/decking: asphalt-covered concrete deck  
other features: MSHD-standard concrete guardrail design with square balusters and angled brackets

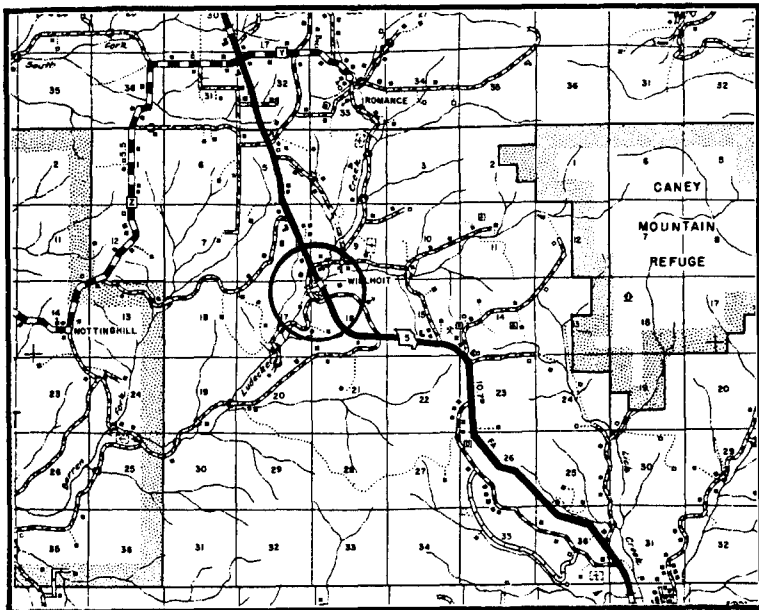
This multiple-span concrete arch bridge once carried Missouri State Highway 5 over Barren Fork in central Ozark County; since a route re-alignment, however, it now carries a county road, near the re-routed highway. Designated Structure No. H-17, the bridge was designed by engineers for the state highway department in 1925. That June the state highway commission awarded a contract to build the concrete-arch structure to the Republic Concrete Construction Company for \$20,995.49. A Republic crew began work on the substructural excavation soon thereafter, and in April 1926 the Barren Fork Bridge was complete. It remains today in unaltered condition.

Although there were exceptions, the Missouri State Highway Department typically used filled spandrel designs for its concrete arches with 80 feet or less of span; open spandrel arches were employed for longer-span applications. MSHD engineers designed numerous single-span examples of the former configuration in the 1920s, but few filled spandrel arches with multiple spans. A handful of these large-scale bridges have been identified by the statewide bridge inventory. The Barren Fork Bridge in Ozark County stands out among those remaining for its high degree of physical integrity. It is thus technologically significant as a well-preserved, multiple-span representative of Missouri State Highway Department concrete design of the 1920s.

---

**NAME(S) OF STRUCTURE**

Barren Fork Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 253000.3; Missouri State Highway Commission, **Fifth Biennial Report: 1925-26**, page 203; Missouri Highway and Transportation Department, Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1990

---

# POLK COUNTY

INCLUDED: [Significant feature(s) of bridge given in boldface]  
[Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*POLK01	H 21A	Barren Creek Bridge	1- 80' <b>concrete filled spandrel arch</b> 1925 A.A. Davis Constr. Company (replaced)
POLK02	H 863	Pomme de Terre R. Bridge	1-100' <b>concrete open spandrel arch</b> 1946 Atkinson-Windle Company
POLK03	T 532	Pomme de Terre R. Bridge	1- 80' pinned Pratt pony truss 1908 Marcus Bridge and Iron Co.
*POLK04	007000.8	Humansville Bridge	1- 50' pinned Pratt half-hip pony truss 1911 Canton Bridge Co., Canton OH
*POLK05	049000.7	County Line Bridge	1-118' <b>pinned Pratt through truss</b> 1911 Canton Bridge Co., Canton OH
*POLK06	079001.1	Cedar Bluff Bridge	2- 23' concrete slab 1918 road district work force
*POLK07	129000.9	Campbell Creek Bridge	1-160' <b>pinned Parker through truss</b> 1913 Canton Bridge Co., Canton OH
*POLK08	159000.3	Francka Ford Bridge	1- 70' pinned Pratt pony truss 1908 Marcus Bridge and Iron Co.
*POLK09	181000.2	Piper Creek Bridge	1-100' <b>pinned Pratt through truss</b> 1912 Canton Bridge Co., Canton OH
*POLK10	253001.4	Bear Creek Bridge	1-150' <b>pinned Pratt through truss</b> c1900
*POLK11	279000.8	Orleans Bridge	1- 20' concrete slab 1918 road district work force
POLK12	286002.1	Coffman Branch Bridge	1-100' <b>pinned Pratt through truss</b> 1898 Wrought Iron Bridge Company (replaced)
*POLK13	306002.2	Aldrich Bridge	3- 7' <b>concrete arch culvert</b> c1920
*POLK14	319000.5	Morrisville Bridge	(replaced)
*POLK15	347500.2	Culvert	2- 11' <b>concrete arch culvert</b> 1911 county work force
*POLK16	463001.7	Hinkle Ford Bridge	
POLK17	502000.3	Town Branch Culvert	

## EXCLUDED:

### Steel stringer

Y 387	014011.1	018000.5	020000.9	021000.4	090000.7	12600.16
160002.2	215000.6	249001.7	249002.1	322003.0	347500.1	350000.1
398001.2	416000.9	473002.7				

### Steel girder

135000.2	166001.1	261001.0	342000.4	350003.5
----------	----------	----------	----------	----------



# POLK COUNTY

---

## EXCLUDED (cont.):

### Concrete girder

H 405	H 407	H 410	H 411	H 739	J 809R	L 198
S 405	T 894	X 528	231001.2	345001.3		

### Concrete slab

H 409	H 738	W 5	W 507	044500.1	074002.7	101000.9
105001.6	188000.6	197000.6	198000.8	219003.8	257000.7	276000.8
280000.6	300001.6	327002.9	373001.5	405000.0	413000.0	414000.4
430001.8	452000.9	459000.2	470001.5	485000.9	510000.2	

### Concrete box culvert

H 22R	H 74	H 406	H 408	H 864	J 949	K 644
L 341	R 839	U044500.2	W 3	W 6	X 529	X 712
X 884	059000.6	062000.8	219000.8	259000.2	261000.4	315000.0
326001.3	327001.6	341000.6	348000.7	410000.7	425001.5	467002.3

### Timber stringer

046000.5

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	12	0	0	14
Excluded	29	61	1	0	90
	31	73	1	0	104 structures

# Barren Creek Bridge

POLK01

## GENERAL DATA

structure no.:	H 21A	city/town:	1.8 miles southeast of Fair Play
county:	Polk	feature inters.:	Barren Creek
		cadastral grid:	S3, T33N, R24W
		highway route:	State Highway 32
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	good
span length:	80.0'	alterations:	none
total length:	82.0'	floor/decking :	asphalt over cambered concrete deck
roadway width:	20.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: MISSOURI HIGHWAY DEPT. BRIDGE No. H21A 1924

## HISTORICAL DATA

erection date:	1925
erection cost:	\$12,420.10
designer:	Missouri State Highway Department
fabricator :	none
contractor:	A.A. Davis Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 21A; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 28 January 1990.
sign. rating:	43
evaluation:	NRHP non-eligible (technologically undistinguished example of a typical MSHD concrete arch)

Inventoried by: Clayton B. Fraser    1 March 1993

# Pomme de Terre River Bridge

---

POLK03

## GENERAL DATA

structure no.:	T 532	city/town:	1.8 miles northeast of Pleasant Hope
county:	Polk	feature inters.:	Pomme de Terre River
		cadastral grid:	S20, T32N, R21W
		highway route:	State Supplementary Route H
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete, two-rib, open spandrel arch, skewed; 2 concrete deck girder approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	1	condition:	good
span length:	100.0'	alterations:	none
total length:	202.0'	floor/decking :	concrete deck
roadway width:	22.0'	other features:	concrete guardrails (MSHD standard design)

## HISTORICAL DATA

erection date:	1946
erection cost:	\$35,922.25
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Atkinson-Windle Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number T 532; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	47
evaluation:	NRHP non-eligible (typically built concrete open spandrel arch, with standard detailing and an average degree of physical integrity)

Inventoried by: Clayton B. Fraser    1 March 1993

# Humansville Bridge

POLK04

## GENERAL DATA

structure no.:	007000.8	city/town:	3.0 miles northwest of Humansville
county:	Polk	feature inters.:	Brush Creek
		cadastral grid:	S6, T35N, R24W
		highway route:	County Road 7
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt pony truss; 1 steel stringer approach span at the north end		
substructure:	concrete abutments, wingwalls and pier		
span number:	1	condition:	fair
span length:	80.0'	alterations:	none
total length:	146.0'	floor/decking :	asphalt on timber deck over steel stringers
roadway width:	11.3'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round eyerod with turnbuckle; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate: [broken] 1908 MARCUS BR... AND IRON W... PEORIA I...

## HISTORICAL DATA

erection date:	1908
erection cost:	unknown
designer:	Marcus Bridge and Iron Company, Peoria IL
fabricator :	Lackawanna Steel Company, Pittsburgh PA
contractor:	Marcus Bridge and Iron Company, Peoria IL
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 007000.8; Polk County Court Record, Book Q-R: page 123 (16 June 1908), page 133 (23 July 1908), page 191 (19 November 1908), page 202 (5 January 1909), page 219 (13 February 1909) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.
sign. rating:	42
evaluation:	NRHP non-eligible (typically configured example of common structural type)

Inventoried by: Clayton B. Fraser 1 March 1993

# County Line Bridge

POLK05

## GENERAL DATA

structure no.:	049000.7	city/town:	6.7 miles northeast of Humansville
county:	Polk	feature inters.:	Weaubleau Creek
		cadastral grid:	S10, T35N, R23W
		highway route:	County Road 49
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt half-hip pony truss  
substructure: concrete abutments and wingwall; stone wingwall at south end

span number:	1	condition:	fair
span length:	50.0'	alterations:	none
total length:	52.0'	floor/decking :	concrete deck over steel stringers
roadway width:	11.5'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; decorative cannonball finials on top of end posts; hip block builder's plate: THE CANTON BRIDGE Co. CANTON, OHIO

## HISTORICAL DATA

erection date: 1911  
erection cost: unknown  
designer: Canton Bridge Company, Canton OH  
fabricator : Canton Bridge Company, Canton OH;  
Cambria Steel Company, Pittsburgh PA  
contractor: Canton Bridge Company, Canton OH  
  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 049000.7; Polk County Court Record, Book Q-R: page 308 (7 February 1911) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.  
  
sign. rating: 43  
evaluation: NRHP non-eligible (somewhat noteworthy for its decorative cannonball finials, but otherwise a typically constructed pinned Pratt through truss)

inventoried by: Clayton B. Fraser 1 March 1993

# Cedar Bluff Bridge

---

POLK06

## GENERAL DATA

structure no.:	079001.1	city/town:	12.8 miles northeast Bolivar
county:	Polk	feature inters.:	Lindley Creek
		cadastral grid:	S29, T35N, R21W
		highway route:	County Road 79
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

**superstructure:** steel, 7-panel, pin-connected Pratt through truss; 1 steel stringer approach span at east end

**substructure:** concrete abutments and pier

<b>span number:</b>	1	<b>condition:</b>	fair
<b>span length:</b>	118.0'	<b>alterations:</b>	none
<b>total length:</b>	159.0'	<b>floor/decking :</b>	timber deck over steel stringers
<b>roadway width:</b>	11.5'	<b>other features:</b>	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 angles with lacing or 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1911 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

## HISTORICAL DATA

**erection date:** 1911

**erection cost:** \$3340.00

**designer:** Canton Bridge Company, Canton OH

**fabricator :** Canton Bridge Company, Canton OH

**contractor:** Canton Bridge Company, Canton OH

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 079001.1; Polk County Court Record (Special Sessions): page 602 (12 August 1911), page 604 (5 September 1911); Polk County Court Record, Book S: page 38 (6 May 1912) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**sign. rating:** 41

**evaluation:** NRHP non-eligible (well-documented example of a common truss configuration, with standard detailing, unremarkable dimensions and an average degree of physical integrity)

**inventoried by:** Clayton B. Fraser    1 March 1993

# Campbell Creek Bridge

---

POLK07

## GENERAL DATA

structure no.:	129000.9	city/town:	4.3 miles north of Fair Play
county:	Polk	feature inters.:	Campbell Creek
		cadastral grid:	S8, T34N, R24W
		highway route:	County Road 129
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	concrete slab		
substructure:	concrete abutments, wingwalls and pier		
span number:	2	condition:	fair
span length:	23.0'	alterations:	none
total length:	45.0'	floor/decking :	concrete deck
roadway width:	16.6'	other features:	unknown

## HISTORICAL DATA

erection date:	1918
erection cost:	\$700.00 (estimated cost)
designer:	unknown
fabricator :	none
contractor:	road district work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 129000.9; Polk County Court Record, Book T: page 565 (18 April 1918), page 576 (8 May 1918) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 February 1990.

sign. rating:	32
evaluation:	NRHP non-eligible (technologically undistinguished example of a simple concrete bridge type)

Inventoried by: Clayton B. Fraser    1 March 1993

# Francka Ford Bridge

---

POLK08

## GENERAL DATA

structure no.:	159000.3	city/town:	6.2 miles north of Bolivar
county:	Polk	feature inters.:	Pomme de Terre River
		cadastral grid:	S1, T34N, R22W
		highway route:	County Road 159
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	steel, 9-panel, pin-connected Parker through truss, with steel stringer approach spans		
substructure:	concrete abutments; stone wingwalls at west end, concrete wingwalls at east end; concrete-filled steel cylinder piers		
span number:	1	condition:	fair
span length:	160.0'	alterations:	none
total length:	220.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.5'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: 1 looped square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing, braced; portal strut: 2 angles with decorative lacing; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate: 1914 THE CANTON BRIDGE Co BUILDERS CANTON OHIO

## HISTORICAL DATA

erection date:	1913
erection cost:	unknown
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH; Cambria Steel Company, Pittsburgh PA
contractor :	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 159000.3; Polk County Court Record, Book S: page 228 (22 September 1913), pages 229-30 (3 November 1913), pages 277 and 279 (7 February 1914), page 347 (15 August 1915), page 366 (4 November 1915), page 370 (6 November 1914) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.



## Francka Ford Bridge

---

sign. rating: 48

evaluation: NRHP possibly eligible (well-preserved example of relatively uncommon Pratt truss subtype)

inventoried by: Clayton B. Fraser 1 March 1993

# Piper Creek Bridge

POLK09

## GENERAL DATA

structure no.:	181000.2	city/town:	1.9 miles northeast of Bolivar
county:	Polk	feature inters.:	Piper Creek
		cadastral grid:	S31, T34N, R22W
		highway route:	County Road 181
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt pony truss; 1 steel stringer approach span at the north end

substructure: concrete abutments, wingwalls and piers

span number:	1	condition:	fair
span length:	70.0'	alterations:	none
total length:	111.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.6'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate [broken]: 1908 MARCUS BR... AND IRON W... PEORIA, I...

## HISTORICAL DATA

erection date: 1908

erection cost: unknown

designer: Marcus Bridge and Iron Company, Peoria IL

fabricator : Inland Steel Company, East Chicago IN

contractor: Marcus Bridge and Iron Company, Peoria IL

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 181000.2; Polk County Court Record, Book Q-R: page 123 (16 June 1908), page 133 (23 July 1908), page 191 (19 November 1908), page 192 (20 November 1908), page 214 (9 February 1909), page 215 (10 February 1909) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

sign. rating: 42

evaluation: NRHP non-eligible (well-documented example of a pin-connected Pratt pony truss—a mainstay design for short-span crossings in the late 19th and early 20th centuries)

inventoried by: Clayton B. Fraser 1 March 1993

# Bear Creek Bridge

POLK10

## GENERAL DATA

structure no.:	253001.4	city/town:	1.2 miles south of Fair Play
county:	Polk	feature inters.:	Bear Creek
		cadastral grid:	S8, T33N, R24W
		highway route:	County Road 253
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt through truss, with steel stringer approach spans		
substructure:	concrete abutments and wingwalls; concrete-filled steel cylinder piers		
span number:	1	condition:	fair
span length:	100.0'	alterations:	none
total length:	190.0'	floor/decking :	asphalt on timber deck, over timber and steel stringers
roadway width:	11.4'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles with decorative lacing; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1912 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

## HISTORICAL DATA

erection date:	1912
erection cost:	unknown
designer:	Canton Bridge Company, Canton OH
fabricator :	Canton Bridge Company, Canton OH
contractor:	Canton Bridge Company, Canton OH
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 253001.4; Polk County Court Record, Book S: page 38 (6 May 1912) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.
sign. rating:	41
evaluation:	NRHP non-eligible (typical example of a common truss configuration, with standard detailing, unremarkable dimensions and an average degree of physical integrity)
inventoried by:	Clayton B. Fraser 1 March 1993

# Orleans Bridge

---

POLK11

## GENERAL DATA

structure no.:	279000.8	city/town:	6.4 miles northwest of Morrisville
county:	Polk	feature inters.:	Little Sac River
		cadastral grid:	S11, T32N, R24W
		highway route:	County Road 279
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	steel, 9-panel, pin-connected Pratt through truss, with steel stringer approach spans		
substructure:	concrete abutments and wingwalls at west end; concrete abutments with stone wingwalls at east end; concrete-filled steel cylinder piers		
span number:	1	condition:	fair
span length:	150.0'	alterations:	none
total length:	180.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.5'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 angles with batten plates (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles with batten plates; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date:	c1900
erection cost:	unknown
designer:	unknown
fabricator :	Carnegie Steel Company, Pittsburgh PA
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 279000.8; field inspection by Clayton Fraser, 28 January 1990.
sign. rating:	34
evaluation:	NRHP non-eligible (with its construction history undocumented, the bridge is of limited interpretive value.)

inventoried by: Clayton B. Fraser    1 March 1993

# Coffman Branch Bridge

---

POLK12

## GENERAL DATA

structure no.:	286002.1	city/town:	0.7 mile northeast Aldrich
county:	Polk	feature inters.:	Coffman Branch
		cadastral grid:	S35, T33N, R24W
		highway route:	County Road 286
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	concrete slab		
substructure:	concrete		
span number:	1	condition:	fair
span length:	20.0'	alterations:	unknown
total length:	23.0'	floor/decking :	concrete
roadway width:	17.0'	other features:	unknown

## HISTORICAL DATA

erection date:	1918
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	Union Special Road District work force
references:	Missouri Highway and Transportation and Highway Department, Structure Inventory and Appraisal: Structure Number 286002.1; Polk County Court Record, Book T: page 576 (8 May 1918); Polk County Court Record, Book U: page 10 (14 August 1918) - located at Polk County Courthouse, Bolivar MO.
sign. rating:	32
evaluation:	NRHP non-eligible (unsophisticated, rudimentary concrete span)

Inventoried by: Clayton B. Fraser    1 March 1993

# Aldrich Bridge

POLK13

## GENERAL DATA

structure no.:	306002.2	city/town:	8.7 miles west of Morrisville
county:	Polk	feature inters.:	Turkey Creek
		cadastral grid:	S20/21, T32N, R24W
		highway route:	County Road 306
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt through truss  
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	100.0'	alterations:	moved to this location in 1949
total length:	100.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.5'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; upper lateral bracing: round rod with turnbuckle; lower lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 2 angles with batten plates; floor beam: I-beam, field-bolted to vertical; guardrail: non-original wire fence; portal builder's plate: 1898 THE WROUGHT IRON BRIDGE CO. CANTON OHIO

## HISTORICAL DATA

erection date: 1898  
erection cost: \$2980.00  
designer: John Kinder, Polk County Surveyor and Bridge Commissioner  
fabricator : Wrought Iron Bridge Company, Canton OH  
contractor: Wrought Iron Bridge Company, Canton OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 306002.2; Polk County Court Record, Book O: page 262 (15 June 1898), page 273 (4 August 1898), page 291 (6 September 1898), page 319 (22 December 1898), page 330 (7 February 1898), page 360 (10 April 1899), page 364 (9 April 1899) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

sign. rating: 32  
evaluation: NRHP non-eligible (typical example of mainstay structural type, moved to its present location)

inventoried by: Clayton B. Fraser 1 March 1993

# Culvert

POLK15

---

## GENERAL DATA

structure no.:	347500.2	city/town:	Pleasant Hope
county:	Polk	feature inters.:	branch of Pomme de Terre River
		cadastral grid:	S32, T32N, R21W
		highway route:	County Road 347
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	concrete arch culvert		
substructure:	concrete		
span number:	3	condition:	fair
span length:	7.0'	alterations:	none
total length:	24.0'	floor/decking :	concrete deck with low curb
roadway width:	9.8'	other features:	unknown

## HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 347500.2; field inspection by Clayton Fraser, 28 January 1990.

sign. rating:	31
evaluation:	NRHP non-eligible (undocumented, undistinguished, small-scale structure)

inventoried by: Clayton B. Fraser    1 March 1993

# Town Branch Culvert

---

POLK17

## GENERAL DATA

structure no.:	502000.3	city/town:	Bolivar
county:	Polk	feature inters.:	Town Branch
		cadastral grid:	S6, T33N, R22W
		highway route:	County Road 502
		highway distr.:	8
		current owner:	Polk County

## STRUCTURAL DATA

superstructure:	concrete arch culvert with masonry walls		
substructure:	concrete		
span number:	2	condition:	fair
span length:	11.0'	alterations:	none
total length:	26.0'	floor/decking :	concrete
roadway width:	16.3'	other features:	unknown

## HISTORICAL DATA

erection date:	1911
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 502000.3; Polk County Court Record, Book Q-R: page 583 (7 July 1911), page 587 (18 July 1911), page 600 (9 August 1911) - located at Polk County Courthouse, Bolivar MO.

sign. rating:	31
evaluation:	NRHP non-eligible (early 20th century example of a rudimentary concrete bridge design)

Inventoried by: Clayton B. Fraser    1 March 1993



# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Humansville Bridge  
MHTD: 007000.8

POLK04

**DATE(S) OF CONSTRUCTION**

1908

**LOCATION**

County Road 7 over Brush Creek; S6, T35N, R24W  
3.0 miles northwest of Humansville; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 42)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 80.0'  
total length: 146.0'  
roadway wdt.: 11.3'

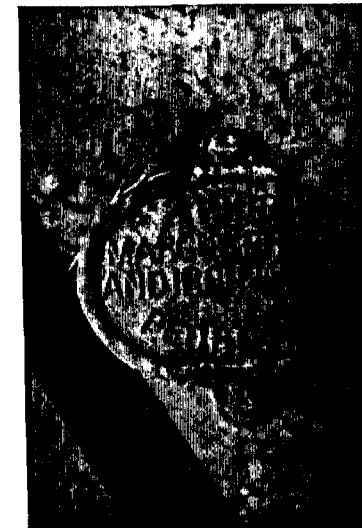
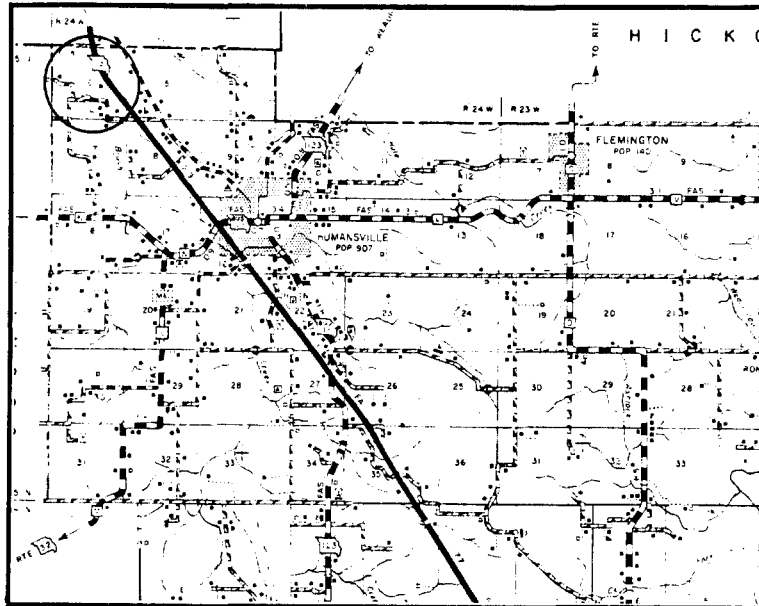
superstructure: steel, 5-panel, pin-connected Pratt pony truss; 1 steel stringer approach span at the north end  
substructure: concrete abutments, wingwalls and pier  
floor/decking: asphalt on timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round eyerod with turnbuckle; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate: [broken] 1908 MARCUS BR... AND IRON W... PEORIA I...

The Humansville Bridge is a pin-connected Pratt pony truss, which spans Brush Creek in extreme northwestern Polk County. Situated three miles northwest of Humansville, the structure was erected in 1908 by the Marcus Bridge and Iron Company of Peoria, Illinois. County court records indicate that on June 16, 1908, county highway engineer J.L. McCrory was ordered to advertise for bids for the construction of two bridges, this one across Brush Creek, and a Piper Creek crossing of the Linn Creek Road, two miles northeast of Bolivar [POLK09]. Just over a month later, on July 23rd, a contract to erect both bridges was let to Marcus. Using steel components rolled in Pittsburgh by the Lackawanna Steel Company, Marcus erected the 80-foot truss using traditional formworks. Since its completion later in 1908, the Humansville Bridge has carried vehicular traffic, with only maintenance-related repairs. It has retained its physical integrity and is a well-documented example of a pin-connected Pratt pony truss—a mainstay design for short-span crossings in the late 19th and early 20th centuries.

---

**NAME(S) OF STRUCTURE**

Humansville Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 007000.8; Polk County Court Record, Book Q-R: page 123 (16 June 1908), page 133 (23 July 1908), page 191 (19 November 1908), page 202 (5 January 1909), page 219 (13 February 1909) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Francka Ford Bridge  
MHTD: 159000.3

POLK08

**DATE(S) OF CONSTRUCTION**

1913

**LOCATION**

County Road 159 over Pomme de Terre River; S1, T34N, R22W  
6.2 miles north of Bolivar; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 48)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 160.0'  
total length: 220.0'  
roadway wdt.: 13.5'

superstructure: steel, 9-panel, pin-connected Parker through truss, with steel stringer approach spans  
substructure: concrete abutments; stone wingwalls at west end, concrete wingwalls at east end; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: 1 looped square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing, braced; portal strut: 2 angles with decorative lacing; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate: 1914 THE CANTON BRIDGE Co BUILDERS CANTON OHIO

The Francka Ford Bridge crosses the Pomme de Terre River approximately six miles north of Bolivar, the county seat of Polk County. The structure dates to 1913. In September of that year the county court advertised for bids to construct three bridges. Two of the spans were to be located across the Sac River and Hominy Creek, respectively, while the third was this Francka Ford crossing of the Pomme de Terre. The Canton Bridge Company received the contract to build all three bridges on November 3, 1913, and agreed to complete their work within one year. Court records do not itemize how much Canton was paid for each of the three bridges, but they do show that the company was issued four warrants totaling \$11,172.00 between February 7, 1914, and November 6, 1914. The Francka Ford Bridge retains a good degree of physical integrity. It has had no major alterations, and continues to serve its original function of carrying vehicular traffic.

Between the early 1880s, when trusses superseded bowstrings, and the 1920s, when field riveting attained widespread use, the pin-connected truss was the structure of choice for medium- and long-span wagon bridges in Missouri. Virtually all of the major Midwestern bridge companies fabricated pinned trusses and marketed them extensively to counties throughout the state in the late 19th and early 20th centuries. This corresponded with a period of intense bridge construction, as the counties were busily upgrading their road and highway systems. As a result, thousands of pinned trusses were built in Missouri during this formative period, and many remain in place today. Most of these featured straight-chorded Pratt configurations. After the turn of the century, however, bridge manufacturers found a greater economy in polygonal-chorded Pratt variants (particularly the Parker truss) for long-span applications. Their relatively long

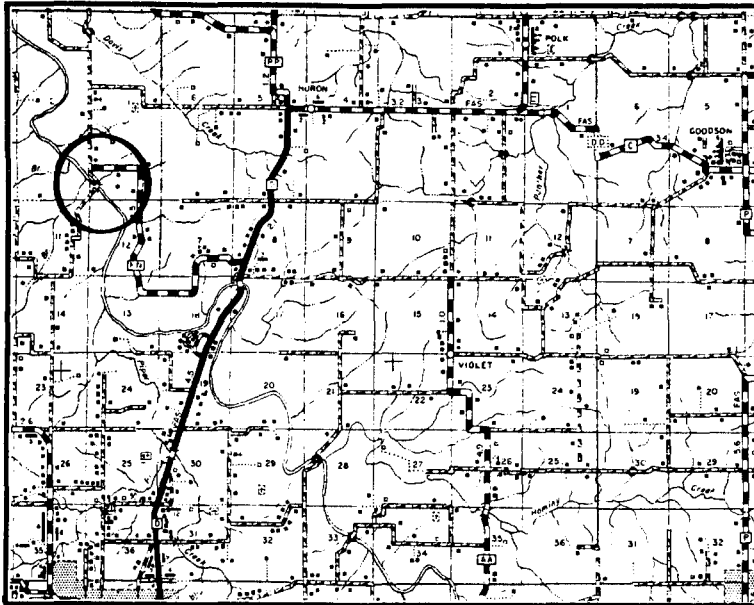


spans, light structural members and archaic detailing have rendered pin-connected Parker trusses particularly vulnerable to subsequent replacement. As a result, of the hundreds that once carried vehicular traffic throughout the state, fewer than three dozen remain in place today. These range in span length from 110 feet to 200 feet and in erection date from 1900 to 1932. The Francka Ford Bridge, with its 160-foot span and 1913 construction date, falls within the mainstream of this trend. It is noteworthy for its excellent state of preservation. The Francka Ford Bridge is a typically built pinned Parker through truss - a mainstay design for medium- and long-span river crossings in the years following the turn of the century.

---

**NAME(S) OF STRUCTURE**

Francka Ford Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 159000.3; Polk County Court Record, Book S: page 228 (22 September 1913), pages 229-30 (3 November 1913), pages 277 and 279 (7 February 1914), page 347 (15 August 1915), page 366 (4 November 1915), page 370 (6 November 1914) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Cedar Bluff Bridge  
MHTD: 079001.1

POLK06

**DATE(S) OF CONSTRUCTION**

1911

**LOCATION**

County Road 79 over Lindley Creek; S29, T35N, R21W  
12.8 miles northeast Bolivar; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 41)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 118.0'  
total length: 159.0'  
roadway wdt.: 11.5'

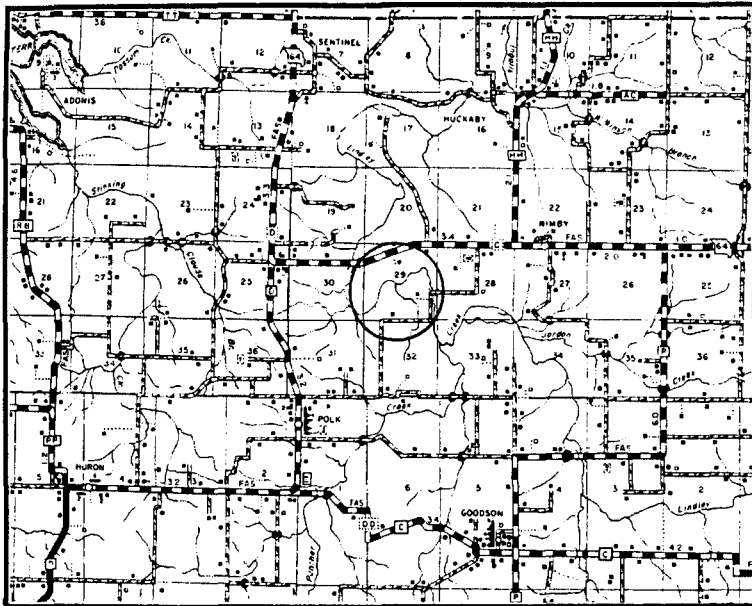
superstructure: steel, 7-panel, pin-connected Pratt through truss; 1 steel stringer approach span at east end  
substructure: concrete abutments and pier  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 angles with lacing or 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1911 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

The Cedar Bluff Bridge carries a county road across Lindley Creek about thirteen miles northeast of Bolivar. Designed as a pin-connected Pratt through truss, the structure was erected in 1911 by the Canton Bridge Company. In August 1911 the Polk County Court ordered that a site be selected to locate a wagon bridge across Lindley Creek at the Cedar Bluff Ford. Later that month, the county advertised for bids, which were received by September 5, 1911. Four days later, the bids were opened, and Canton was awarded the contract to build the structure. Canton had actually presented the county four separate options, but the proposal that was accepted called for a 118-foot main span with one 42-foot approach, to be erected at a cost of \$3340.00. Apparently work on the project proceeded on schedule, as on May 6, 1912, the county issued a warrant to Canton in the amount of \$3340.00. The bridge maintains good physical integrity. It still carries vehicular traffic in its original location, and has had no apparent alterations. The Cedar Bluff Bridge is a well-documented example of a common truss configuration, with standard detailing, unremarkable dimensions and an average degree of physical integrity.

---

**NAME(S) OF STRUCTURE**

Cedar Bluff Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 079001.1; Polk County Court Record (Special Sessions): page 602 (12 August 1911), page 604 (5 September 1911); Polk County Court Record, Book S: page 38 (6 May 1912) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---



# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Piper Creek Bridge  
MHTD: 181000.2

POLK09

**DATE(S) OF CONSTRUCTION**

1908

**LOCATION**

County Road 181 over Piper Creek; S31, T34N, R22W  
1.9 miles northeast of Bolivar; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 42)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 70.0'  
total length: 111.0'  
roadway wdt.: 11.6'

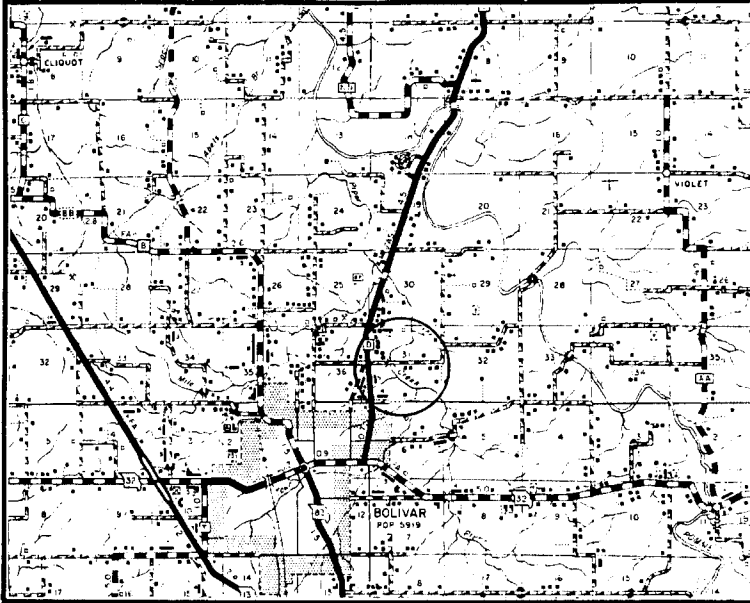
superstructure: steel, 5-panel, pin-connected Pratt pony truss; 1 steel stringer approach span at the north end  
substructure: concrete abutments, wingwalls and piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate [broken]: 1908 MARCUS BR... AND IRON W... PEORIA, I...

The Piper Creek Bridge is a pin-connected, Pratt pony truss that spans Piper Creek some two miles northwest of Humansville. The structure was erected in 1908 by the Marcus Bridge and Iron Company of Peoria, Illinois. County court records indicate that on June 16, 1908, county highway engineer J.L. McCrory was ordered to advertise for bids for the construction of two bridges, this one across Piper Creek, and a Brush Creek crossing three miles northwest of Humansville [POLK04]. Just over a month later, on July 23rd, a contract to erect both bridges was let to Marcus. That November, Marcus requested and was granted permission by the county to build the Piper Creek piers and abutments out of concrete, rather than stone, as had been called for in the plan. Using steel components rolled by Inland, Marcus erected the 70-foot truss using traditional formworks. Since its completion later in 1908, the Piper Creek Bridge has carried vehicular traffic, with only maintenance-related repairs. It has retained its physical integrity and is a well-documented example of a pin-connected Pratt pony truss—a mainstay design for short-span crossings in the late 19th and early 20th centuries.

---

**NAME(S) OF STRUCTURE**

Piper Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 181000.2; Polk County Court Record, Book Q-R: page 123 (16 June 1908), page 133 (23 July 1908), page 191 (19 November 1908), page 192 (20 November 1908), page 214 (9 February 1909), page 215 (10 February 1909) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bear Creek Bridge  
MHTD: 253001.4

POLK10

**DATE(S) OF CONSTRUCTION**

1912

**LOCATION**

County Road 253 over Bear Creek; S8, T33N, R24W  
1.2 miles south of Fair Play; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 41)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 100.0'  
total length: 190.0'  
roadway wdt.: 11.4'

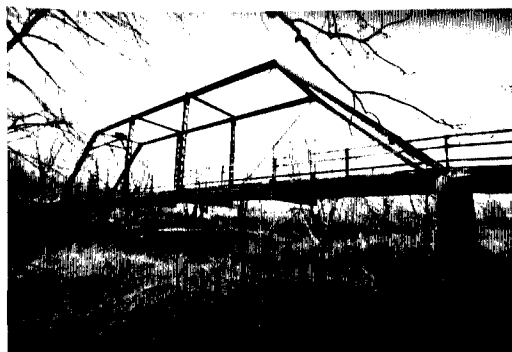
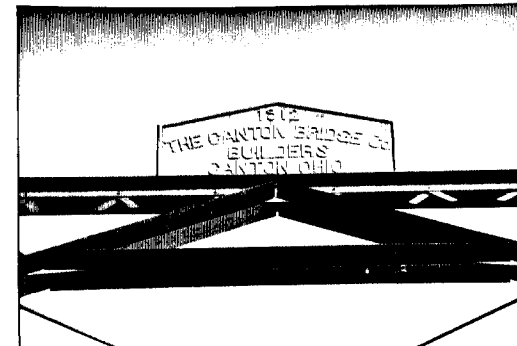
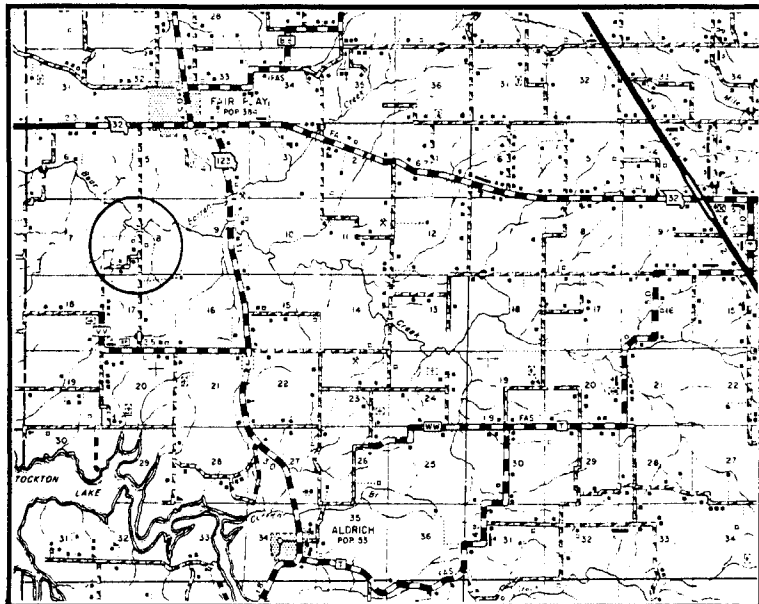
superstructure: steel, 5-panel, pin-connected Pratt through truss, with steel stringer approach spans  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers  
floor/decking: asphalt on timber deck, over timber and steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: square eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles with decorative lacing; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1912 THE CANTON BRIDGE Co. BUILDERS CANTON OHIO

On May 9, 1912, the Polk County Court advertised for bids for the construction of five bridges. Four of the structures, built over the Pomme de Terre River, Turkey Creek, Upper Beaver Creek and Piper Creek respectively, are no longer standing. The fifth bridge was this crossing of Bear Creek located over one mile south of Fair Play. The Canton Bridge Company of Canton, Ohio, which obtained the contract to fabricate and erect all five bridges, agreed to complete them by November 1912, for a total cost of \$11,559.00. In researching court records, payments totaling the full \$11,559.00 were not found. But a warrant in the amount of \$7019.00 was paid to Canton on February 3, 1913, for work on the five bridges. Located in its original site, the Bear Creek Bridge does not appear to have been significantly altered. As such, the structure possesses a good degree of physical integrity. The Bear Creek Bridge is a typical example of a common truss configuration, with standard detailing, unremarkable dimensions and an average degree of physical integrity.

---

**NAME(S) OF STRUCTURE**

Bear Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 253001.4; Polk County Court Record, Book S: page 38 (6 May 1912) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Aldrich Bridge  
MHTD: 306002.2

POLK13

**DATE(S) OF CONSTRUCTION**

1898

**LOCATION**

County Road 306 over Turkey Creek; S20/21, T32N, R24W  
8.7 miles west of Morrisville; Polk County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 32)

**CONDITION**

fair

**OWNER**

Polk County

span number: 1  
span length: 100.0'  
total length: 100.0'  
roadway wdt.: 13.5'

superstructure: steel, 5-panel, pin-connected Pratt through truss  
substructure: concrete abutments and wingwalls  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; upper lateral bracing: round rod with turnbuckle; lower lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 2 angles with batten plates; floor beam: I-beam, field-bolted to vertical; guardrail: non-original wire fence; portal builder's plate: 1898 THE WROUGHT IRON BRIDGE Co. CANTON OHIO

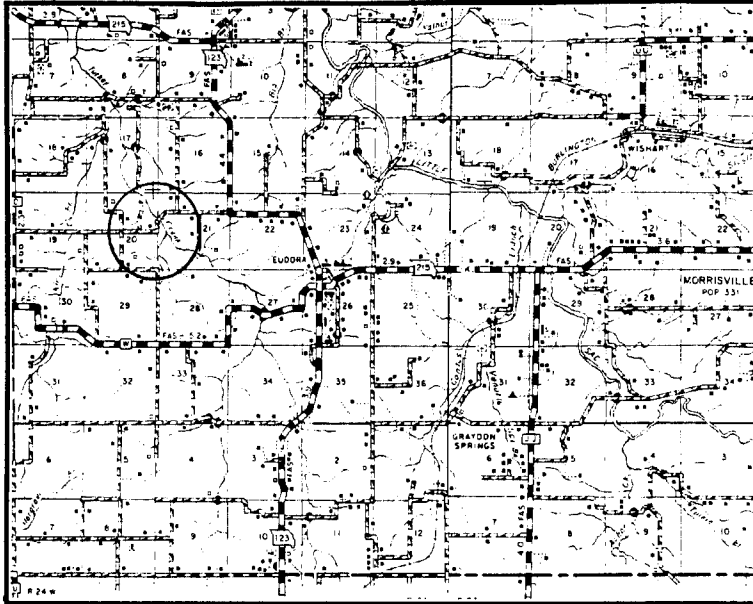
On June 15, 1898, Polk County Surveyor and Bridge Commissioner John Kinder advertised for bids for the construction of two steel trusses. One of the structures was to span the Pomme de Terre River at McCracken's Ford near Rondo, while the other was to bridge the Dry Sac River near Aldrich. Kinder drew plans and specifications for both bridges, and on August 4, 1898, a contract for their construction was let to J.W. Hoover, agent for the Wrought Iron Bridge Company. Although the Wrought Iron Company was located in Canton, Ohio, Hoover was based in Kansas City. The county issued warrants to Hoover in the amounts of \$4000.00 on February 7, 1899, and \$2000.00 on April 9, 1899, by which time both bridges were apparently complete. Of the total, \$2980.00 was for construction of the Aldrich Bridge. Ten years later, in 1909, the Aldrich Bridge was damaged somewhat by high spring run off waters. As a result, on May 14, 1909, the Canton Bridge Company was awarded a \$1186.00 contract to rebuild one of the bridge's approach spans. The Aldrich Bridge continued to serve in its original location until 1949, when it was moved to its present site over Turkey Creek.

Bridge companies such as WIBCo advertised the pinned Pratt truss extensively in their catalogues of standard iron spans in the late 19th century. With its uniformly fabricated components and easy field erection, the Pratt truss was ideally suited for the highly competitive bidding for county bridge construction. Thousands of pinned Pratt trusses were built on Missouri's county road system, and many remain in place today. The Aldrich Bridge is distinguished among these for its somewhat early construction date and for its well-preserved condition. With both superstructure and substructure intact, it is a noteworthy transportation-related resource.

---

**NAME(S) OF STRUCTURE**

Aldrich Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 306002.2; Polk County Court Record, Book O: page 262 (15 June 1898), page 273 (4 August 1898), page 291 (6 September 1898), page 319 (22 December 1898), page 330 (7 February 1898), page 360 (10 April 1899), page 364 (9 April 1899) - located at Polk County Courthouse, Bolivar MO; field inspection by Clayton Fraser, 28 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

1 March 1993

---

# STONE COUNTY

---

INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*STON01	G 447R	Railey Creek Bridge	1-110' riveted Pratt through truss 1923 M.E. Gillioz, Monett MO (replaced)
*STON02	133000.3	Hootentown Bridge	1-155' pinned Pratt through truss 1915 Fred L. Appleby
*STON03	141000.0	McCall Ford Bridge	5-100' concrete opem spandrel arch with split approach, one side 1926 Koss Construction Company
*STON04	H 404	Y Bridge	

## EXCLUDED:

Steel stringer  
 T1016 016001.0

Concrete girder  
 J 620 J 723 J 724 T 608 197000.3

Concrete slab  
 029000.2 037001.2 077001.8 088001.4 100500.1 102000.0  
 200001.8

Concrete box culvert  
 J 174 J 473 K 178 X 662 157000.5

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	1	1	0	1	3
Excluded	9	10	0	0	19
	10	11	0	1	22 structures

# Railey Creek Bridge

---

STON01

## GENERAL DATA

structure no.:	G 447R	city/town:	0.8 mile south of Galena
county:	Stone	feature inters.:	Railey Creek
		cadastral grid:	S7, T24N, R23W
		highway route:	State Highway 248
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 6-panel, rigid-connected Pratt through truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	good
span length:	110.0'	alterations:	guardrails replaced with Armco
total length:	113.0'	floor/decking :	concrete deck over steel stringers
roadway width:	20.0'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date:	1923
erection cost:	\$14,652.35
designer:	Missouri State Highway Department
fabricator :	unknown
contractor :	M.E. Gillioz, Monett MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. G 447R; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	40
evaluation:	NRHP non-eligible (standard example of 1920s MSHD truss design)

Inventoried by: Clayton B. Fraser    5 March 1992



# McCall Ford Bridge

STONE03

## GENERAL DATA

structure no.:	141000.0	city/town:	3.4 miles northwest of Ponce de Leon
county:	Stone	feature inters.:	James River
		cadastral grid:	S1, T25N, R23W
		highway route:	County Road 141
		highway distr.:	8
		current owner:	Stone County

## STRUCTURAL DATA

superstructure:	steel, 10-panel, pin-connected Pratt through truss; steel, 4-panel, pin-connected Pratt half-hip pony truss approach span; 1 steel stringer approach span		
substructure:	stone and concrete abutments; concrete piers		
span number:	1	condition:	fair
span length:	155.0'	alterations:	one concrete pier replaced with in-kind material
total length:	321.0'		
roadway width:	12.1'	floor/decking :	timber deck over timber stringers
		other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: looped round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: steel pipe

## HISTORICAL DATA

erection date:	1915
erection cost:	\$2500.00
designer:	Fred L. Appleby, Kansas City MO
fabricator :	Illinois Steel Company, Chicago IL (main span); Cambria Steel Company, Pittsburgh PA (pony truss approach span)
contractor:	Fred L. Appleby, Kansas City MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 141000.0; Stone County Court Record, Book H: page 459 (4 September 1914), page 531 (9 April 1915), page 547 (6 May 1915), page 549 (3 June 1915), page 555 (21 June 1915), page 572 (4 August 1915); Stone County Court Record, Book I: page 99 (23 November 1916), n.p. (10 June 1916) - located at Stone County Courthouse, Galena MO; field inspection by Clayton Fraser, 31 January 1990.

## McCall Ford Bridge

---

sign. rating: 48

evaluation: NRHP possibly eligible (well-preserved, long-span example of mainstay structural type)

Inventoried by: Clayton B. Fraser 5 March 1992

# Y Bridge

---

STON04

## GENERAL DATA

structure no.:	H 404	city/town:	Galena
county:	Stone	feature inters.:	James River
		cadastral grid:	S6, T24N, R23W
		highway route:	abandoned segment of State Highway 13/43
		highway distr.:	8
		current owner:	City of Galena

## STRUCTURAL DATA

superstructure:	concrete, 2-rib, open spandrel arch; concrete girder split approach at southwest end; 10 concrete girder approach spans at northeast end		
substructure:	concrete abutments, wingwall and spill-through concrete piers; concrete and rock wingwall at northeast approach		
span number:	5	condition:	good
span length:	100.0'	alterations:	none
total length:	845.0'	floor/decking :	asphalt over concrete deck
roadway width:	23.0'	other features:	concrete guardrails (standard MSHD design); bridge plate: MISSOURI HIGHWAY DEPARTMENT BRIDGE No. H404 1926

## HISTORICAL DATA

erection date:	1926-27
erection cost:	\$90,811.60
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Koss Construction Company
references:	"Crane (Stone County) Missouri", Volume 99 Number 18, 17 (October 1985); "Transportation and Tourism in the Shepherd of the Hills Country: The Case of the Y-Bridge (Part 1)", <b>White River Valley Historical Quarterly</b> , Vol. 10 No. 5 (Fall 1989) - located at Galena Public Library, Galena MO; field inspection by Clayton Fraser, 31 January 1990.
sign. rating:	74
evaluation:	NRHP listed, 4 April 1991 (outstanding example of MSHD highway bridge design, unique for its split approach)

inventoried by: Clayton B. Fraser    5 March 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

McCall Ford Bridge  
MHTD: 141000.0

STONE03

**DATE(S) OF CONSTRUCTION**

1915

**LOCATION**

County Road 141 over James River; S1, T25N, R23W  
3.4 miles northwest of Ponce de Leon; Stone County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 48)

**CONDITION**

fair

**OWNER**

Stone County

span number: 1  
span length: 155.0'  
total length: 321.0'  
roadway wdt.: 12.1'

superstructure: steel, 10-panel, pin-connected Pratt through truss; steel, 4-panel, pin-connected Pratt half-hip pony truss approach span; 1 steel stringer approach span  
substructure: stone and concrete abutments; concrete piers  
floor/decking: timber deck over timber stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: looped round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: 2 angles; floor beam: I-beam, field-bolted to vertical; guardrail: steel pipe

Known locally as the McCall Ford Bridge, this long-span structure carries County Road 141 across the James River some 3½ miles northwest of Ponce de Leon. The structure dates to 1915. In April of that year the Stone County Court cited the need to build a number of bridges across the James and White Rivers. Specifically, the court stated that three steel bridges were to be built, including one over the James River at McCall Ford in the northeastern corner of the county. In May county highway engineer W.T. McCullough surveyed and developed plans and estimates for each of the structures. Bids were solicited and received for the three bridges, and on June 3, 1915, a contract, in the amount of \$22,700.00, was let to Fred L. Appleby of Kansas City. At that time Appleby was an agent for both the Canton Bridge Company of Canton, Ohio, and the Western Bridge Company of Harrisonville, Missouri, but court records do not specify which firm he was representing for this particular contract. In addition to the McCall Ford Bridge, the other two structures included the Welson Ford crossing of the James River, and a bridge over the White River near Townsend Ford, both since removed. Appleby agreed to finish his work by 1 May 1916. Over the next several months the county issued Appleby several warrants for work on the bridges, and the project was evidently completed on schedule. Since its completion, the McCall Ford Bridge has carried vehicular traffic, with only maintenance-related repairs.

As one of America's most prolific bridge fabricators, the Canton Bridge Company maintained an extensive catalogue of truss types, ranging from the exotic to the commonplace. Canton, like most of the region's bridge builders of the time, relied heavily on pin-connected Pratt truss variants for its standard truss types. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design was characterized by upper chords and vertical members acting in compression and lower chords and diagonals that acted in tension. Its parallel chords and equal

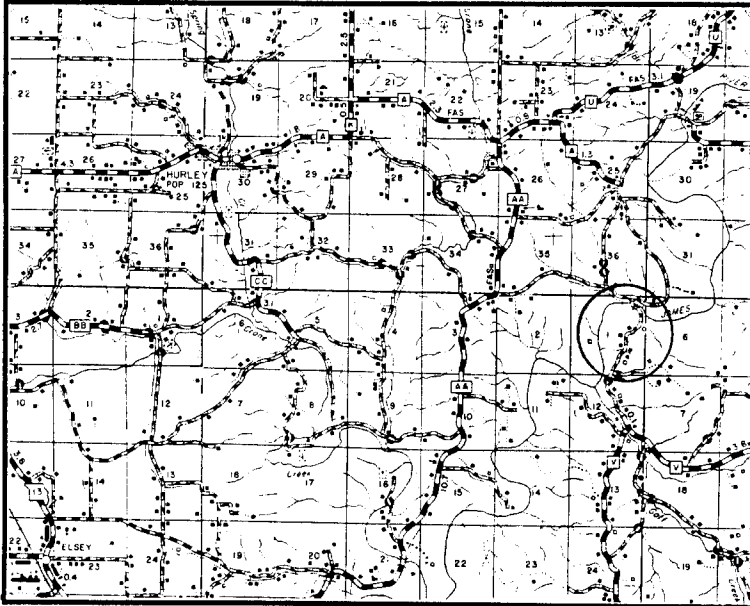


panel lengths resulted in standardized sizes for the verticals, diagonals and chord members, making fabrication and assembly relatively easy. In the highly competitive bridge manufacturing industry, in which efficiency equated with profit, Pratt trusses received almost universal use. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty feet in length," noted bridge engineer J.A.L. Waddell wrote in 1916. "Its advantages are simplicity, economy of metal, and suitability for connecting to the floor and lateral systems." Virtually all of the major regional fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties in the late 19th and early 20th centuries. The McCall Ford Bridge is distinguished among these for its excellent state of preservation, its relatively long span, and its dramatic setting high above the James River. With its truss, substructure and approach spans essentially in place, it is an important transportation-related resource.

---

**NAME(S) OF STRUCTURE**

McCall Ford Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 141000.0; Stone County Court Record, Book H: page 459 (4 September 1914), page 531 (9 April 1915), page 547 (6 May 1915), page 549 (3 June 1915), page 555 (21 June 1915), page 572 (4 August 1915); Stone County Court Record, Book I: page 99 (23 November 1916), n.p. (10 June 1916) - located at Stone County Courthouse, Galena MO; field inspection by Clayton Fraser, 31 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1992

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Y Bridge  
MHTD: H 404

STON04

**DATE(S) OF CONSTRUCTION**

1926-27

**LOCATION**

abandoned segment of State Highway 13/43 over James River; S6, T24N, R23W  
Galena; Stone County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / pedestrian bridge

**RATING** NRHP listed, 4 April 1991 (score: 74)

**CONDITION**

good

**OWNER**

City of Galena

span number: 5  
span length: 100.0'  
total length: 845.0'  
roadway wdt.: 23.0'

superstructure: concrete, 2-rib, open spandrel arch; concrete girder split approach at southwest end;  
10 concrete girder approach spans at northeast end  
substructure: concrete abutments, wingwall and spill-through concrete piers; concrete and rock wingwall  
at northeast approach  
floor/decking: asphalt over concrete deck  
other features: concrete guardrails (standard MSHD design); bridge plate: **MISSOURI HIGHWAY  
DEPARTMENT BRIDGE No. H404 1926**

The first structure to span the James River at Galena was a three-span, Parker through truss erected near the local canning factory in 1910-11. Following construction of the Y Bridge in 1927, the original steel bridge was dismantled and rebuilt as a two-span structure at Hootentown [STON02]. Construction of the Y Bridge played an important role in opening the Ozarks to regional and state commerce, and to the tourism industry. The structure was the first of a number of 100-foot long, 23-foot wide concrete deck bridges to be built in Missouri, with others following in 1928, 1929, 1931 and 1932. In addition to being the first of these structures, the bridge is also significant owing to its unique Y configuration. Built by the Missouri Highway Department, the bridge is comprised of a two-rib, concrete, open spandrel arch with a concrete girder split approach on the southwest side. Work on the bridge began in 1926, and its completion was marked by a dedication ceremony on November 13, 1927. Up to 5000 persons attended the event which included a short address by Congressman Dewey Short. One week later the bridge formally opened and began to carry traffic. The Y Bridge served its original purpose for fifty-eight years, until it was closed to vehicles on 25 November 1985. Since that date, the bridge has been maintained by the town of Galena as a pedestrian crossing.

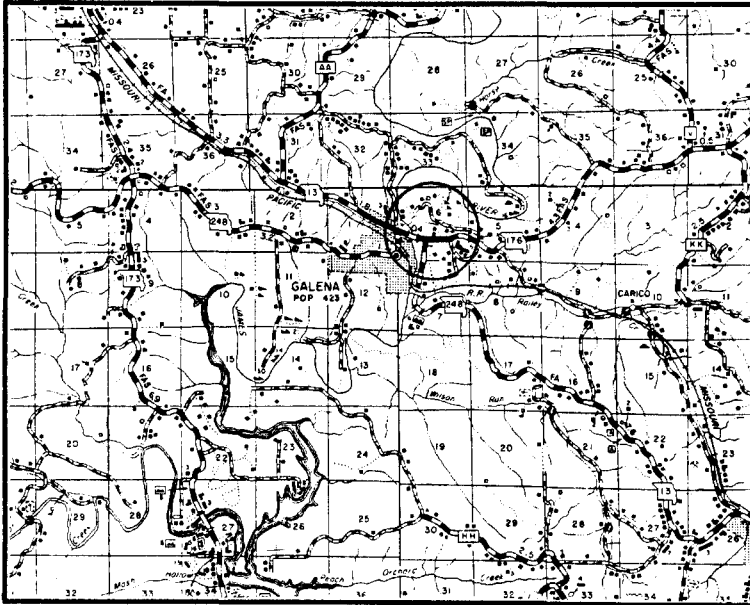
The Galena Y Bridge is significant both as an important regional crossing of the James River, and as an outstanding example of concrete bridge construction, designed by the Missouri State Highway Department. The bridge's Y configuration is unique—one of only three or four such examples in America—and the crossing is additionally significant as a superlative example of concrete open spandrel arch construction.



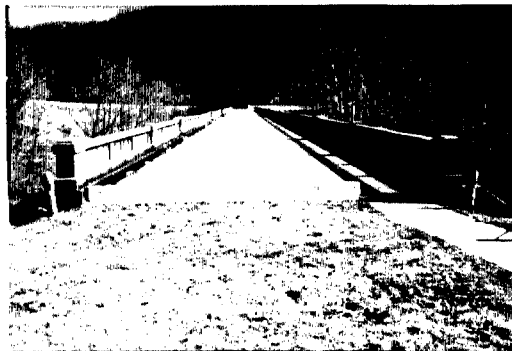
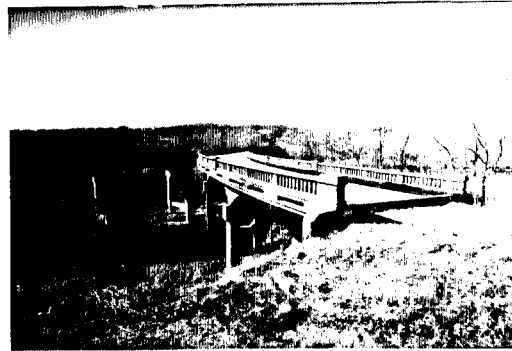
---

**NAME(S) OF STRUCTURE**

Y Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**SOURCES**

"Crane (Stone County) Missouri", Volume 99 Number 18, 17 (October 1985); "Transportation and Tourism in the Shepherd of the Hills Country: The Case of the Y-Bridge (Part 1)", **White River Valley Historical Quarterly**, Vol. 10 No. 5 (Fall 1989) - located at Galena Public Library, Galena MO; field inspection by Clayton Fraser, 31 January 1990.

---

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1992

---

# TANEY COUNTY

---

**INCLUDED:** [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*TANE01	H 39	Bull Creek Bridge	3- 80' concrete open spandrel arch 1926 C.T. Fogle, Jefferson City MO
*TANE02	J 705R	Branson Bridge	5-195' concrete open spandrel arch 1932 Fred Luttjohann, Topeka KS
*TANE03	J 952	Swan Creek Bridge	1-150' concrete open spandrel arch 1932 M.E. Gillioz, Monett MO
*TANE04	J 952R	Swan Creek Bridge	2-180' riveted Camelback through truss 1952 Porter-Dewitt Construction Co.
*TANE05	S 848	Bradleyville Bridge	1-122' concrete open spandrel arch 1933 J.A. Kerr
*TANE06	201000.1	Hollister Bridge	1-100' pinned Pratt through truss 1912 Canton Bridge Company; Brazael, McGee and Page

## EXCLUDED:

Steel stringer  
 X 354A X 355A 018000.0

Concrete slab / girder  
 G 716R J 704A J 710R J 774R S 598 X 331 004003.0028002.2  
 204001.3

Concrete box culvert  
 S 600 S 847 S 894 T 604 T 605 T 606 X 330  
 X 332 X 333 X 785 Y 998

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	5	1	0	0	6
Excluded	19	4	0	0	23
	24	5	0	0	29 structures

# Bull Creek Bridge

---

TANE01

## GENERAL DATA

structure no.:	H 39	city/town:	5.4 miles northwest of Forsyth
county:	Taney	feature inters.:	Bull Creek
		cadastral grid:	S34, T24N, R21W
		highway route:	State Highway 160
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete, two-rib, open spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	80.0'	alterations:	none
total length:	248.0'	floor/decking :	asphalt over concrete deck
roadway width:	20.0'	other features:	MSHD standard concrete guardrails with square balusters and paneled bulkheads; Armco guardrail at approaches; fluted pylons with molded capitals at piers

## HISTORICAL DATA

erection date:	1925-26
erection cost:	\$24,970.94
designer:	Missouri State Highway Department
fabricator :	none
contractor:	C.T. Fogle Construction Company, Jefferson City MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 39; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; <b>Fifth Biennial Report of the State Highway Commission of Missouri</b> : 1925-26, pages 140-41, 220; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.
sign. rating:	51
evaluation:	NRHP possibly eligible (well-preserved, representative example of open spandrel arch construction)

inventoried by: Clayton B. Fraser    5 March 1991

# Branson Bridge

---

TANE02

## GENERAL DATA

structure no.:	J 705R	city/town:	Branson
county:	Taney	feature inters.:	White River
		cadastral grid:	S4, T22N, R21W
		highway route:	U.S. Business Route 65
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, with two concrete deck girder approach spans

substructure: concrete abutments and wingwalls; concrete spill-through piers

span number:	5	condition:	good
span length:	195.0'	alterations:	none
total length:	1087.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	MSHD standard concrete guardrails with Italianate cutouts and paneled bulkheads; recessed Italianate panels on piers; bridge plate: MISSOURI HIGHWAY DEPARTMENT BRIDGE N° J705 FRED LUTTJOHANN - CONTRACTOR TOPEKA, KANSAS

## HISTORICAL DATA

erection date: 1931-32

erection cost: \$159,919.73

designer: Missouri State Highway Department

fabricator : none

contractor: H.H. Carrothers;  
Fred Luttjohann, Topeka KS

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 705R; Missouri Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; Eighth Biennial Report of the State Highway Commission of Missouri: 1930-32, pages 239, 242; field inspection by Clayton Fraser, 25 January 1990.

sign. rating: 61

evaluation: NRHP possibly eligible (outstanding example of MSHD concrete arch design)

inventoried by: Clayton B. Fraser 5 March 1991

# Swan Creek Bridge

---

TANE03

## GENERAL DATA

structure no.:	J 952	city/town:	1.1 miles east of Forsyth
county:	Taney	feature inters.:	Swan Creek
		cadastral grid:	S33/34, T23N, R20W
		highway route:	old State Highway 160
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, with four concrete deck girder approach spans

substructure: concrete abutments and wingwalls; concrete spill-through piers

span number:	1	condition:	good
span length:	150.0'	alterations:	none
total length:	345.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	MSHD standard concrete guardrails; bridge plate: MISSOURI HIGHWAY DEPART. BRIDGE N° J952 1932; builder's plate: BUILT BY M.E. GILLIOZ CONTRACTOR MONETT, MO

## HISTORICAL DATA

erection date: 1932

erection cost: \$28,527.95

designer: Missouri State Highway Department

fabricator : none

contractor: M.E. Gillioz, Monett MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 952; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 25 January 1990.

sign. rating: 53

evaluation: NRHP possibly eligible (well-preserved example of MSHD long-span concrete arch design)

inventoried by: Clayton B. Fraser    5 March 1991

# Swan Creek Bridge

TANE04

## GENERAL DATA

structure no.:	J 952R	city/town:	1.1 miles east of Forsyth
county:	Taney	feature inters.:	Swan Creek
		cadastral grid:	S33/34, T23N, R20W
		highway route:	State Highway 160
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 8-panel, rigid-connected Camelback through truss, with multiple steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	good
span length:	180.0'	alterations:	none
total length:	445.0'	floor/decking :	asphalt on concrete, over steel stringers
roadway width:	24.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: wide flange; diagonal: 2 angles with batten plates, or wide flange; lateral bracing: 2 angles with batten plates or lacing (upper), 1 angle (lower); strut: channel; portal strut: angles with batten plates; floor beam: I-beam; guardrail: 2 channels (concrete at approaches)

## HISTORICAL DATA

erection date:	1951-52
erection cost:	\$233,715.70
designer:	Missouri State Highway Department
fabricator :	Inland Steel Company, East Chicago IN
contractor:	Porter-Dewitt Construction Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 952R; Missouri Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 25 January 1990.
sign. rating:	61
evaluation:	NRHP possibly eligible (uncommon, late example of MSHD truss bridge engineering)

Inventoried by: Clayton B. Fraser    5 March 1991

# Bradleyville Bridge

TANE05

## GENERAL DATA

structure no.:	S 848	city/town:	0.4 mile southeast of Bradleyville
county:	Taney	feature inters.:	Beaver Creek
		cadastral grid:	S11, T24N, R18W
		highway route:	State Highway 76
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, with seven concrete deck girder approach spans

substructure: concrete abutments and wingwalls; concrete spill-through piers

span number:	1	condition:	good
span length:	122.5'	alterations:	none
total length:	468.0'	floor/decking :	asphalt on concrete deck
roadway width:	24.0'	other features:	MSHD standard concrete guardrails; Armco guardrails at approaches; bridge plate: MISSOURI HIGHWAY DEPARTMENT BRIDGE N <sup>o</sup> S848; builder's plate [removed, but impression left in concrete]: J.A. KERR / OZARK, MO. ...WITHROW...

## HISTORICAL DATA

erection date: 1933

erection cost: \$29,013.92

designer: Missouri State Highway Department

fabricator : none

contractor: J.A. Kerr, Ozark MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. S 848; Missouri Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 25 January 1990.

sign. rating: 47

evaluation: NRHP non-eligible (well-preserved, though technologically unremarkable, example of concrete open spandrel arch construction.)

inventoried by: Clayton B. Fraser 5 March 1991

# Hollister Bridge

TANE06

## GENERAL DATA

structure no.:	201000.1	city/town:	Hollister
county:	Taney	feature inters.:	Turkey Creek
		cadastral grid:	S9, T22N, R21W
		highway route:	Third Street
		highway distr.:	8
		current owner:	Taney County

## STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt through truss, with steel stringer approach span  
substructure: concrete abutments and pier

span number:	1	condition:	fair
span length:	100.0'	alterations:	deck and stringers replaced, c1975
total length:	137.0'	floor/decking :	concrete deck over steel stringers
roadway width:	13.6'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: looped square eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: angle A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1912 / THE CANTON BRIDGE CO. / BUILDERS / CANTON, OHIO; bridge plate: 1912 / C.W. BRAZAEAL / J.W. MCGEE / FRANK PAGE / CONTR.

## HISTORICAL DATA

erection date: 1912  
erection cost: unknown  
designer: Canton Bridge Company, Canton OH  
fabricator : Canton Bridge Company, Canton OH;  
Cambria Steel Company, Pittsburgh PA  
contractor: Brazael, McGee and Page  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 201000.1; Hollister Townsite Plat (filed 25 June 1910); Requisition of the Hollister-Kirbyville Special Road District (filed 8 February 1915) - on file at Taney County Courthouse, Forsyth MO; field inspection by Clayton Fraser, 25 January 1990.  
sign. rating: 46  
evaluation: NRHP non-eligible (representative example of Pratt truss construction, with standard detailing, unremarkable dimensions and an average degree of physical integrity)

Inventoried by: Clayton B. Fraser 5 March 1991



# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bull Creek Bridge

MHTD:

H 39

**LOCATION**

State Highway 160 over Bull Creek; S34, T24N, R21W  
5.4 miles northwest of Forsyth; Taney County, Missouri

TANE01

**DATE(S) OF CONSTRUCTION**

1925-26

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 51)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3

span length: 80.0'

total length: 248.0'

roadway wdt.: 20.0'

superstructure: concrete, two-rib, open spandrel arch

substructure: concrete abutments, wingwalls and piers

floor/decking: asphalt over concrete deck

other features: MSHD standard concrete guardrails with square balusters and paneled bulkheads; Armco guardrail at approaches; fluted pylons with molded capitals at piers

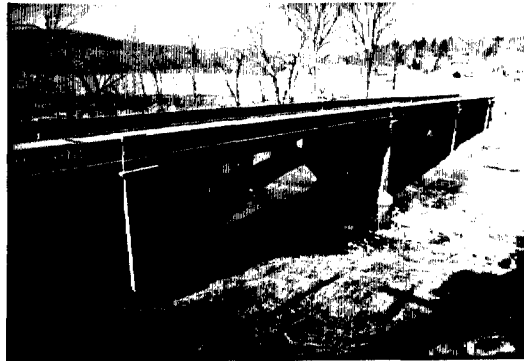
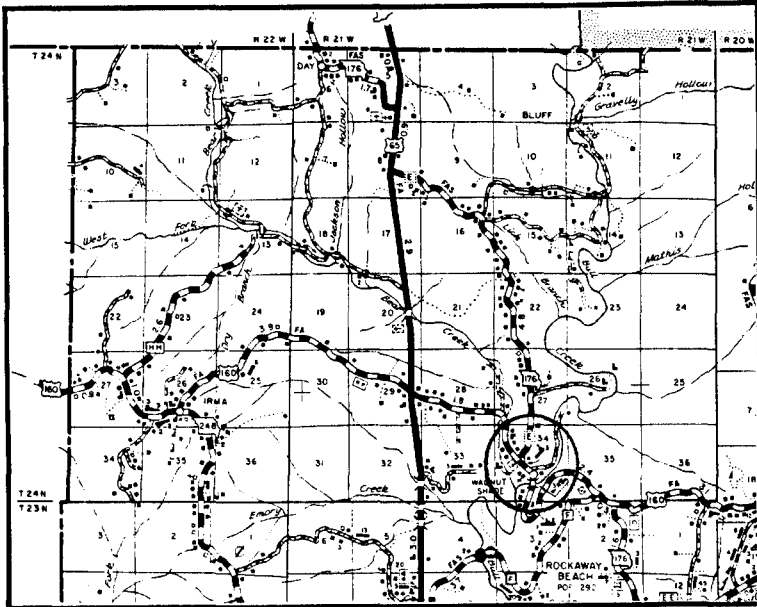
This multiple-span concrete structure is located some 5½ miles northwest of Forsyth, where it carries State Highway 160 over Bull Creek. Comprised of three concrete open spandrel arches, the bridge was built in 1925 as part of a program to improve State Highway 76 in Taney County. Plans for the structure were prepared by the Bureau of Bridges of the Missouri State Highway Department early that year. Designating the bridge as Section 4 of the highway project, the highway commission in April awarded a construction contract for it to the C.T. Fogle Construction Company of Jefferson City. The Bull Creek Bridge was completed early in 1926 for a cost of \$24,970.94. Since its construction, the bridge has carried increasingly heavy traffic on State Highway 160, which leads northwestward toward Springfield. Little changed from its original appearance, the structure's historical integrity remains intact.

The Missouri State Highway Department characteristically used open spandrel designs for its concrete arches with 80 feet or more of span in the 1920s and 1930s. With some exceptions, filled spandrel arches were typically employed for shorter-span applications. MSHD engineers designed a number of open spandrel arches during the period, employing both single- and multiple-span configurations. Among those identified by the statewide bridge inventory, the Bull Creek Bridge is a well-preserved, representative example of open spandrel arch construction - one of the earliest remaining examples in the state of this mainstay structural type.

---

**NAME(S) OF STRUCTURE**

Bull Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 39; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Fifth Biennial Report of the State Highway Commission of Missouri: 1925-26, pages 140-41, 220; field inspection by Clayton Fraser, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1991

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Swan Creek Bridge  
MHTD: J 952

TANE03

**DATE(S) OF CONSTRUCTION**

1932

**LOCATION**

old State Highway 160 over Swan Creek; S33/34, T23N, R20W  
1.1 miles east of Forsyth; Taney County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 53)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1  
span length: 150.0'  
total length: 345.0'  
roadway wdt.: 20.0'

superstructure: concrete, two-rib, open spandrel arch, with four concrete deck girder approach spans  
substructure: concrete abutments and wingwalls; concrete spill-through piers  
floor/decking: concrete deck  
other features: MSHD standard concrete guardrails; bridge plate: MISSOURI HIGHWAY DEPART.  
BRIDGE N\* J952 1932; builder's plate: BUILT BY M.E. GILLIOZ CONTRACTOR  
MONETT, MO

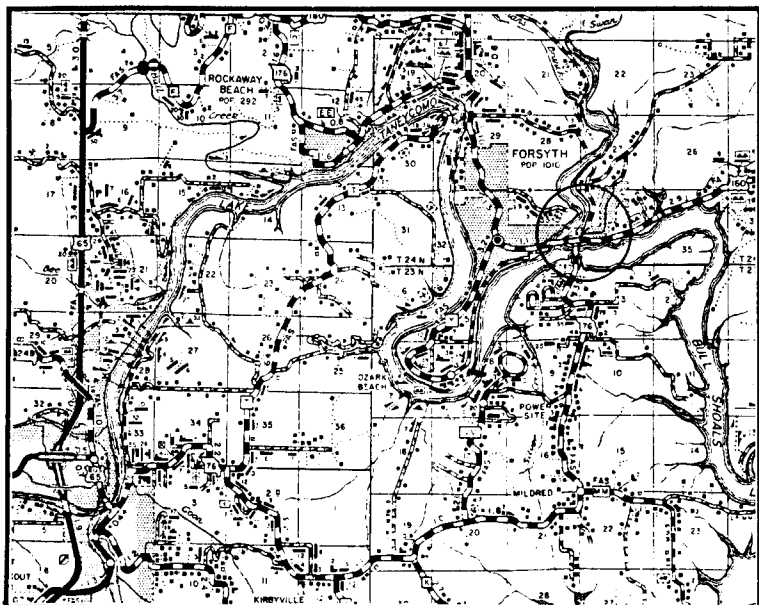
The Swan Creek Bridge is located about one mile east of Forsyth on a vacated grade of State Highway 160. A single-span open spandrel arch, the concrete structure is flanked by four deck girder approach spans. Efforts by the state highway department to build this bridge began in late 1931. Plans were prepared by the Missouri State Highway Commission's Bureau of Surveys and Plans, and by year's end the project was ready to be let. On February 2, 1932, the construction contract was awarded to M.E. Gillioz of Monett, Missouri. Apparently completed later that year, the cost of the Swan Creek Bridge was \$28,527.95. Between 1932 and the early 1950s, the structure carried increasingly heavy traffic loads on State Highway 160. In 1951-52 a new grade of the highway was built through the region, complete with a new bridge across Swan Creek [J 952R] nearby. The earlier Swan Creek Bridge subsequently functioned as a locally used crossing on the older bypassed highway. Having been modified very little since its erection in 1932, the structure has retained a large measure of its historical integrity.

In the mid-1920s, the Missouri State Highway Department developed standard plans for an open spandrel arch design. Ranging in span length from 80 feet to 150 feet, the arches featured two fairly massive ribs that supported vertical columns with splayed tops to support a partially cantilevered deck. The highway department built open spandrel arches to replace earlier steel or iron trusses at major river crossings throughout the state, but for some reason concentrated their construction in the Ozark region in southwestern Missouri. Never very common, less than forty such bridges remain in place today. The Swan Creek Bridge is distinguished as among the longest-span examples of this structural type in the state. Exceeded in span length by only the Branson Bridge [TANE02], it is a noteworthy highway-related resource.

---

**NAME(S) OF STRUCTURE**

Swan Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 952; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Swan Creek Bridge  
MHTD: J 952R

TANE04

**DATE(S) OF CONSTRUCTION**

1951-52

**LOCATION**

State Highway 160 over Swan Creek; S33/34, T23N, R20W  
1.1 miles east of Forsyth; Taney County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP potentially eligible (score: 61)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 2

span length: 180.0'

total length: 445.0'

roadway wdt.: 24.0'

superstructure: steel, 8-panel, rigid-connected Camelback through truss, with multiple steel stringer approach spans

substructure: concrete abutments, wingwalls and piers

floor/decking: asphalt on concrete, over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: wide flange; diagonal: 2 angles with batten plates, or wide flange; lateral bracing: 2 angles with batten plates or lacing (upper), 1 angle (lower); strut: channel; portal strut: angles with batten plates; floor beam: I-beam; guardrail: 2 channels (concrete at approaches)

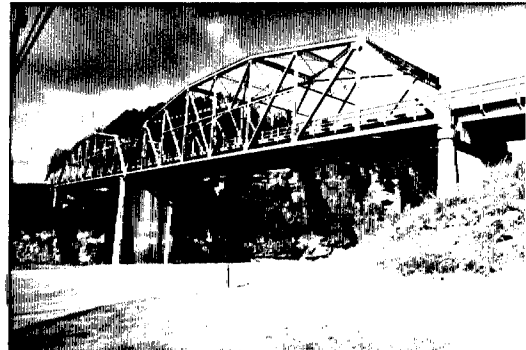
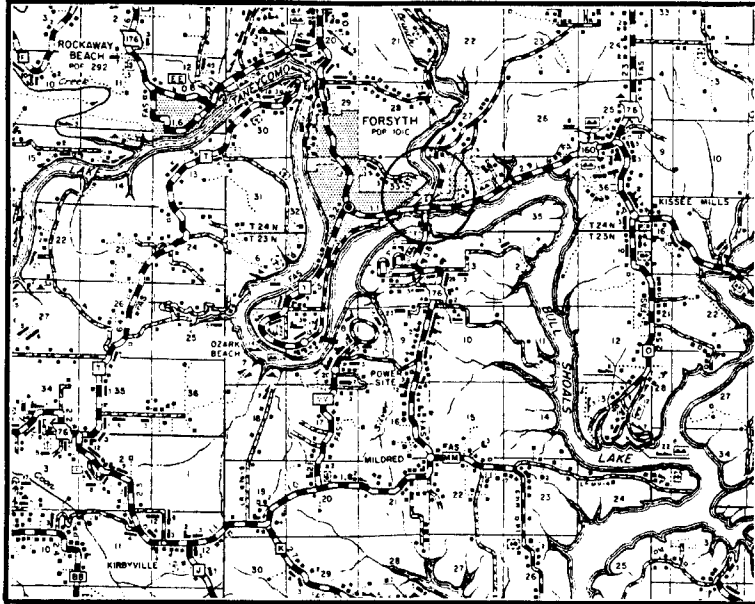
The Swan Creek Bridge is located about a mile east of Forsyth on State Highway 160. A two-span rigid-connected Camelback through truss, the structure is flanked by two steel stringer approach spans and supported by a concrete substructure. The first Highway 160 bridge across Swan Creek [TANE03] here was a concrete arch built in 1932. In the early 1950s the Missouri State Highway Department re-routed a large portion of U.S. 160 through Taney County, following a higher route around Bull Shoals Lake. Part of the new alignment entailed construction of this bridge over the mouth of Swan Creek next to the 1932 structure. The new bridge would be wider than the concrete arch it would replace, but, more importantly, it would be carried several feet higher above the water level than its predecessor. MSHD engineers designed the truss, using a standard, riveted Camelback truss configuration, and hired the Porter-Dewitt Construction Company in August 1951 to erect it. Completed the following year at a cost of \$233,715.70, the Swan Creek Bridge has carried regional traffic since, in unaltered condition.

From its formative years to the present, the Missouri State Highway Department has always relied on standard designs for its bridges. During the 1920s and 1930s MSHD employed the riveted Pratt truss for its medium-span through truss, with the polygonal-chorded Parker configuration for its longer span trusses. After World War II, steel beam bridges largely superseded Pratt trusses for medium spans, and the riveted Camelback replaced the Parker for long-span trusses. The Swan Creek Bridge represents this latter construction trend. One of just three riveted through Camelbacks identified by the statewide bridge inventory, it is technologically noteworthy as an uncommon, late example of MSHD truss bridge engineering.

---

**NAME(S) OF STRUCTURE**

Swan Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 952R; Missouri Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser and Paula Sutton, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1993

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Branson Bridge  
MHTD: J 705R

TANE02

**DATE(S) OF CONSTRUCTION**

1931-32

**LOCATION**

U.S. Business Route 65 over White River; S4, T22N, R21W  
Branson; Taney County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 61)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 5

span length: 195.0'

total length: 1087.0'

roadway wdt.: 20.0'

superstructure: concrete, two-rib, open spandrel arch, with two concrete deck girder approach spans

substructure: concrete abutments and wingwalls; concrete spill-through piers

floor/decking: concrete deck

other features: MSHD standard concrete guardrails with Italianate cutouts and paneled bulkheads; recessed Italianate panels on piers; bridge plate: **MISSOURI HIGHWAY DEPARTMENT BRIDGE N° J705 FRED LUTTJOHANN - CONTRACTOR TOPEKA, KANSAS**

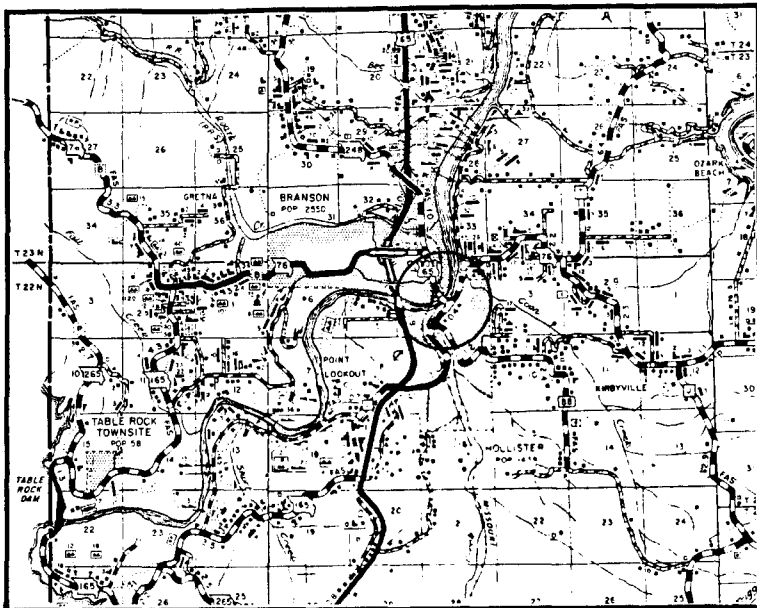
The Branson Bridge is a multiple-span concrete arch structure that spans the White River in Branson, on U.S. Business Route 65. Comprised of five 195-foot open spandrel arches flanked on both ends by 55-foot concrete deck girder approach spans, the imposing structure was built in 1931-32. Its design was prepared by the Missouri State Highway Commission's Bureau of Surveys and Plans early in 1931, and by spring the project was ready to be let out to bid. Records at the Missouri Highway and Transportation Department indicate that on July 31, 1931, H.H. Carrothers was awarded the construction contract for just under \$160,000.00. Carrothers must have sub-contracted for the actual work with Fred Luttjohann of Topeka, Kansas, as indicated by a builder's plate on the bridge itself. Missouri's superlative example of concrete open spandrel arch construction, the Branson Bridge appears largely the same as when originally built.

In the mid-1920s, the Missouri State Highway Department developed standard plans for an open spandrel arch design. Ranging in span length from 80 feet to 150 feet, the arches featured two fairly massive ribs that supported vertical columns with splayed tops to support a partially cantilevered deck. The highway department built open spandrel arches to replace earlier steel or iron trusses at major river crossings throughout the state, but for some reason concentrated their construction in the Ozark region in southwestern Missouri. Never very common, less than forty such bridges remain in place today. The Branson Bridge is among the most distinguished among those that remain. With five spans of 195 feet, it is unmatched in terms of span length and overall length among Missouri's concrete structures. The Branson Bridge is also one of a handful of such bridges with five or more spans. A gracefully arching structure held high above the White River at a high-visibility crossing, the Branson Bridge is technologically significant as perhaps Missouri's most outstanding concrete highway bridge.

---

**NAME(S) OF STRUCTURE**

Branson Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 705R; Missouri Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson City MO; Eighth Biennial Report of the State Highway Commission of Missouri: 1930-32, pages 239, 242; field inspection by Clayton Fraser, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1991

---



# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Hollister Bridge  
MHTD: 201000.1

TANE06

**DATE(S) OF CONSTRUCTION**

1912

**LOCATION**

Third Street over Turkey Creek; S9, T22N, R21W  
Hollister; Taney County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP non-eligible (score: 46)

**CONDITION**

fair

**OWNER**

Taney County

span number: 1  
span length: 100.0'  
total length: 137.0'  
roadway wdt.: 13.6'

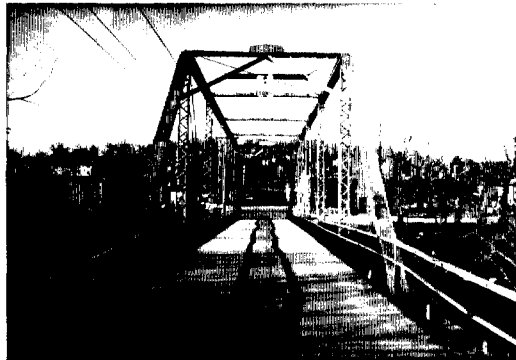
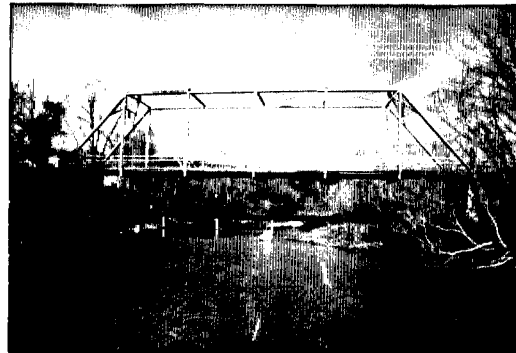
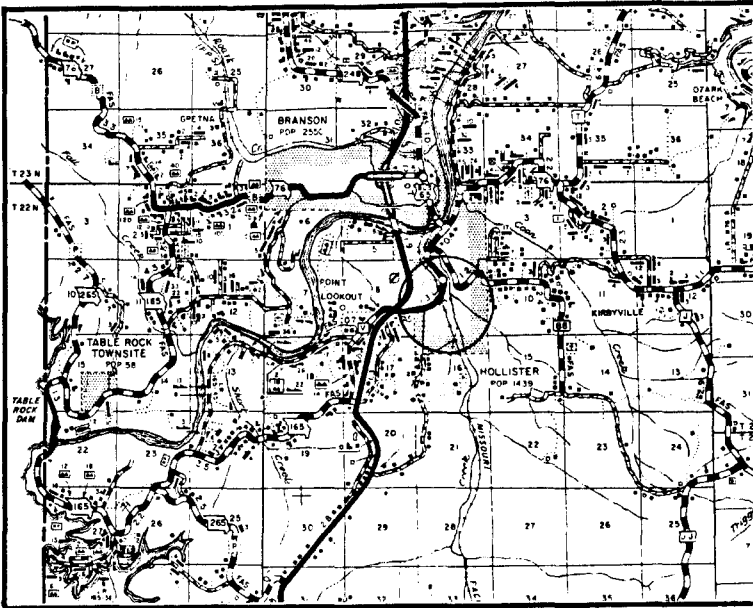
superstructure: steel, 6-panel, pin-connected Pratt through truss, with steel stringer approach span  
substructure: concrete abutments and pier  
floor/decking: concrete deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: looped square eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: angle A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; portal builder's plate: 1912 / THE CANTON BRIDGE CO. / BUILDERS / CANTON, OHIO; bridge plate: 1912 / C.W. BRAZAEAL / J.W. McGEE / FRANK PAGE / CONTR.

This pinned Pratt through truss carries Third Street over Turkey Creek in the small town of Hollister. Platted in 1910, Hollister soon developed as a regional center of commerce, along with its twin, Branson. In 1912 the Hollister-Kirbyville Special Road District was formed to build a road east from Hollister that would link it with the town of Kirbyville. An integral part of the road was a bridge over Turkey Creek on the outskirts of Hollister. In the spring of 1912 members of the special road district bonded themselves for \$7500.00 to build the road and the bridge. They contracted with the Canton Bridge Company of Canton, Ohio, to fabricate the steel, pin-connected truss, and a group of local builders erected it on a concrete substructure. Completed later that summer, the Hollister Bridge has carried vehicular traffic to the present, with only minor alteration. It is a representative example of a Pratt through truss construction, with standard detailing, unremarkable dimensions and an average degree of physical integrity.

---

**NAME(S) OF STRUCTURE**

Hollister Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

---

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 201000.1; Hollister Townsite Plat (filed 25 June 1910); Requisition of the Hollister-Kirbyville Special Road District (filed 8 February 1915) - on file at Taney County Courthouse, Forsyth MO; field inspection by Clayton Fraser, 25 January 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

5 March 1991

---

# WEBSTER COUNTY

---

INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
WEBS01	100000.5	Pantry Creek Culvert	2- 15' concrete arch culvert c1920

## EXCLUDED:

Pratt pony truss  
 G 719R

Steel stringer						
S 886	S 887	065001.9	085000.0	090000.6	201000.8	

Steel girder  
 X 793

Concrete girder						
G 699	L 376R1	L 379R1	S 198	T 125	Y 772	155000.3
229000.4						

Concrete slab						
L 240	X 737	X 933	Y 601	088000.0	107001.0	112000.1
113002.5	129001.1	157001.6	226000.5	257001.9	260000.9	261002.5
262002.5	340001.5	386001.2	386002.0	398000.6	400000.3	400001.5
406000.2	406000.4	407000.7	417000.3	425002.6		

Concrete box culvert						
L 375R1	L 377R	P 64R	S 197	S 884	T 674	T 675
X 640	X 929	X 930	X 931	X 932	182000.1	196000.8
223001.0	234000.6	275001.0	275001.4	339000.1		

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	0	1	0	0	1
Excluded	26	35	0	0	61
	26	36	0	0	62 structures

# Pantry Creek Culvert

---

WEBS01

## GENERAL DATA

structure no.:	100000.5	city/town:	6.3 miles north of Niangua
county:	Webster	feature inters.:	Pantry Creek
		cadastral grid:	S20, T32N, R17W
		highway route:	county road
		highway distr.:	8
		current owner:	Webster County

## STRUCTURAL DATA

superstructure:	concrete arch culvert with cantilevered sides		
substructure:	concrete		
span number:	2	condition:	fair
span length:	15.0'	alterations:	unknown
total length:	30.0'	floor/decking :	concrete deck
roadway width:	9.0'	other features:	unknown

## HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor :	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 100000.5.
sign. rating:	20
evaluation:	NRHP non-eligible (small-scale structure with little technological merit)

inventoried by: Clayton B. Fraser    9 March 1990

# WRIGHT COUNTY

---

INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
WRIG01	268000.9	Wolf Creek Bridge	1- 60' pinned Pratt pony truss c1910
WRIG02	342001.8	Bridge	1- 60' pinned Pratt half-hip pony truss c1910

## EXCLUDED:

Steel stringer  
 S 99 T 356 T 358 X 519 X 853 018001.9 074000.5  
 296001.0 313R01.1

Concrete girder  
 H 290 J 754 J 755 377001.8

Concrete slab  
 J 756 W 480 017001.3 037000.8 114001.7 119000.6 134000.9  
 231001.4 232002.6 233001.2 242000.6 242000.7 243001.1 280000.9  
 309R00.2 347001.0 358001.3

Concrete box culvert  
 G 787R H 485 J 315 J 317R J 318R P 90 S 221  
 T 357 T 359 T 360 T 515 T 517 T 550 T 551  
 X 163 X 164 X 889 X 914 X 924 Y 523 011002.2  
 376001.7 377002.6 379000.5 379001.6

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	0	2	0	0	2
Excluded	30	25	0	0	55
	30	27	0	0	57 structures

# Wolf Creek Bridge

WRIG01

---

## GENERAL DATA

structure no.:	268000.9	city/town:	5.2 miles south of Hartville
county:	Wright	feature inters.:	Wolf Creek
		cadastral grid:	S25, T29N, R15W
		highway route:	County Road 268
		highway distr.:	8
		current owner:	Wright County

## STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt pony truss		
substructure:	stone masonry abutments		
span number:	1	condition:	fair
span length:	60.0'	alterations:	unknown
total length:	60.0'	floor/decking :	timber deck
roadway width:	14.2'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date:	c1910
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 268000.9.

sign. rating:	28
evaluation:	NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser    9 March 1990

# Bridge

---

WRIG02

## GENERAL DATA

structure no.:	342001.8	city/town:	2.2 miles northeast of Hartville
county:	Wright	feature inters.:	branch of Gasconade River
		cadastral grid:	S33, T30N, R14W
		highway route:	County Road 342
		highway distr.:	8
		current owner:	Wright County

## STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt half-hip pony truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	60.0'	alterations:	concrete piers added under panel points
total length:	60.0'	floor/decking :	concrete deck over steel stringers
roadway width:	15.0'	other features:	steel angle guardrails

## HISTORICAL DATA

erection date:	c1910
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor :	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 342001.8.

sign. rating:	21
evaluation:	NRHP non-eligible (typical example of common structural type, braced by the addition of concrete piers under the panel points)

inventoried by: Clayton B. Fraser    9 March 1990]